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<b>State:</b>	Indiana	<b>Filing Company:</b>	Indiana Compensation Rating Bureau
<b>TOI/Sub-TOI:</b>	16.0 Workers Compensation/16.0004 Standard WC		
<b>Product Name:</b>	January 1, 2018 Advisory Rate Filing		
<b>Project Name/Number:</b>	/		

## Filing at a Glance

Company:	Indiana Compensation Rating Bureau
Product Name:	January 1, 2018 Advisory Rate Filing
State:	Indiana
TOI:	16.0 Workers Compensation
Sub-TOI:	16.0004 Standard WC
Filing Type:	Rate
Date Submitted:	09/20/2017
SERFF Tr Num:	INCR-131200706
SERFF Status:	Closed-Filed
State Tr Num:	
State Status:	
Co Tr Num:	1/1/2018 RATES
Co Status:	
Effective Date	01/01/2018
Requested (New):	
Effective Date	01/01/2018
Requested (Renewal):	
Author(s):	Ron Cooper
Reviewer(s):	Richard Beverage (primary)
Disposition Date:	10/13/2017
Disposition Status:	Filed
Effective Date (New):	
Effective Date (Renewal):	

**State:** Indiana  
**TOI/Sub-TOI:** 16.0 Workers Compensation/16.0004 Standard WC  
**Product Name:** January 1, 2018 Advisory Rate Filing  
**Project Name/Number:** /

**Filing Company:** Indiana Compensation Rating Bureau

## General Information

Project Name: Status of Filing in Domicile: Pending  
Project Number: Domicile Status Comments:  
Reference Organization: Reference Number:  
Reference Title: Advisory Org. Circular: ICRB Circular 2017-06  
Filing Status Changed: 10/13/2017 Company Status Changed:  
State Status Changed: Deemer Date:  
Created By: Ron Cooper Submitted By: Ron Cooper  
Corresponding Filing Tracking Number:

### Filing Description:

Full filing of advisory loss costs, advisory rates and rating values for both voluntary and assigned risk business effective January 1, 2018 for new and renewal policies. This filing proposes a 12.1% decrease to the overall voluntary loss cost level and a 12.8% decrease to the overall voluntary and assigned risk rate level.

## Company and Contact

### Filing Contact Information

Ron Cooper, President rcooper@icrb.net  
5920 Castleway W Dr 317-842-2800 [Phone] 301 [Ext]  
Indianapolis, IN 46250

### Filing Company Information

Indiana Compensation Rating Bureau  
5920 Castleway W Dr  
Indianapolis, IN 46250  
(317) 842-2800 ext. 301[Phone]

CoCode:  
Group Code:  
Group Name: ICRB  
FEIN Number: 35-0837318

State of Domicile: Indiana  
Company Type: Rating Organization  
State ID Number:

## Filing Fees

Fee Required? Yes  
Fee Amount: \$35.00  
Retaliatory? No  
Fee Explanation:  
Per Company: Yes

Company	Amount	Date Processed	Transaction #
Indiana Compensation Rating Bureau	\$35.00	09/20/2017	128865038

<b>State:</b>	Indiana	<b>Filing Company:</b>	Indiana Compensation Rating Bureau
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<b>Project Name/Number:</b>	/		

## Rate Information

Rate data applies to filing.

<b>Filing Method:</b>	SERFF
<b>Rate Change Type:</b>	Decrease
<b>Overall Percentage of Last Rate Revision:</b>	-9.300%
<b>Effective Date of Last Rate Revision:</b>	01/01/2017
<b>Filing Method of Last Filing:</b>	SERFF

## Company Rate Information

Company Name:	Overall % Indicated Change:	Overall % Rate Impact:	Written Premium Change for this Program:	Number of Policy Holders Affected for this Program:	Written Premium for this Program:	Maximum % Change (where req'd):	Minimum % Change (where req'd):
Indiana Compensation Rating Bureau	-12.800%	-12.800%	\$-112,151,424	100,000	\$876,183,000	%	%

<b>State:</b>	Indiana	<b>Filing Company:</b>	Indiana Compensation Rating Bureau
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<b>Product Name:</b>	January 1, 2018 Advisory Rate Filing		
<b>Project Name/Number:</b>	/		

## Rate/Rule Schedule

Item No.	Schedule Item Status	Exhibit Name	Rule # or Page #	Rate Action	Previous State Filing Number	Attachments
1		January 1, 2018 Rate Filing		New		January 1, 2018 PROPOSED Rate Filing 09-20-17.pdf



# Indiana

Advisory Loss Costs, Advisory Rates,  
Assigned Risk Rates, and  
Rating Values Filing

Proposed Effective January 1, 2018



September 20, 2017

Steve Robertson  
Commissioner of Insurance  
Indiana Department of Insurance  
311 W. Washington St., Suite 300  
Indianapolis, IN 46204-2787

**RE: Workers Compensation Advisory Loss Costs, Rates, and Rating Values:  
Indiana Voluntary and Assigned Risk Markets**

Dear Commissioner Robertson:

In accordance with the applicable statutes and regulations in the state of Indiana, I am filing for your consideration and approval the workers compensation advisory loss costs, advisory rates, and rating values for the Indiana voluntary market and assigned risk rates and rating values for the Indiana assigned risk market.

This filing proposes a 12.1% decrease to the overall voluntary loss cost level and a 12.8% decrease to the overall voluntary and assigned risk rate level to become effective on January 1, 2018 for new and renewal business.

Please note the following in connection with this filing:

1. As a result of Item B-1397, effective July 1, 2007, a single combined rate is still calculated for Class Codes 7710 and 7711 via a payroll-weighted average of the separately indicated rates for these two Class Codes.
2. As a result of Item B-1435, effective January 1, 2018:
  - a. Class Code 1655 is discontinued and the rate for Class Code 1642 is payroll weighted to reflect the combined experience of Class Codes 1642 and 1655.
  - b. Class Codes 1741 and 1853 are discontinued and the rate for Class Code 1701 is payroll weighted to reflect the combined experience of Class Codes 1701, 1741, and 1853.
  - c. Class Codes 1860, 4282 and 4279 are combined to reflect the first year of a two-year transition program. In the second year of the transition, Class Codes 1860 and 4282 will be discontinued.
  - d. Class Codes 2534 and 2501 are combined to reflect the first year of a two-year transition program. In the second year of the transition, Class Code 2534 will be discontinued.
  - e. Class Code 3175 is discontinued and the rate for Class Code 3169 is payroll weighted to reflect the combined experience of Class Codes 3175 and 3169.
  - f. Class Code 3223 is discontinued and the rate for Class Code 3180 is payroll weighted to reflect the combined experience of Class Codes 3223 and 3180.
  - g. Class Codes 4113 and 4111 are combined to reflect the first year of a two-year transition program. In the second year of the transition, Class Code 4113 will be discontinued.



INDIANA COMPENSATION RATING BUREAU  
5920 Castleway West Drive • Indianapolis, Indiana 46250  
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- h. Class Codes 4053, 4061 and 4062 are combined to reflect the first year of a three-year transition program. In the third year of the transition, Class Codes 4053 and 4061 will be discontinued.
  - i. Class Code 4439 is discontinued and the rate for Class Code 4558 is payroll weighted to reflect the combined experience of Class Codes 4439 and 4558.
  - j. Class Codes 4716 and 4683 are combined to reflect the first year of a three-year transition program. In the third year of the transition, Class Code 4716 will be discontinued.
  - k. Class Code 5069 is discontinued and the rate for Class Code 5059 is payroll weighted to reflect the combined experience of Class Codes 5059 and 5069.
  - l. Class Code 6017 is discontinued and the rate for Class Code 5213 is payroll weighted to reflect the combined experience of Class Codes 5213 and 6017.
  - m. Class Codes 7228 and 7229 are discontinued and the rate for Class Code 7219 is established and payroll weighted to reflect the combined experience of Class Codes 7228 and 7229.
  - n. Class Code 7225 is established.
3. As a result of Item R-1413, the retrospective rating plan parameters were updated.

Our desire is to make this filing as clear as possible. For additional information, we would be glad to meet with you at your convenience.

We make this filing on behalf of the members and subscribers of the Indiana Compensation Rating Bureau. All persons on the "Interested Persons List" have been notified of the captioned filing.

We respectfully request that the filing be "Filed" electronically via the NAIC SERFF system within thirty days.

Sincerely,

Actuarial content prepared by:

Ronald W. Cooper, CWCP  
President

Robert Moss, ACAS, MAAA  
Assistant Actuary, NCCI

Enclosure



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## Indiana

### **Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018**

#### **Actuarial Certification**

I, Rob Moss, am an Assistant Actuary for the National Council on Compensation Insurance, Inc. I am an Associate of the Casualty Actuarial Society and a member of the American Academy of Actuaries, and I meet the Qualification Standards of the American Academy of Actuaries to provide the actuarial report contained herein.

The information contained in this report has been prepared under my direction in accordance with applicable Actuarial Standards of Practice as promulgated by the Actuarial Standards Board. The Actuarial Standards Board is vested by the U.S.-based actuarial organizations with the responsibility for promulgating Actuarial Standards of Practice for actuaries providing professional services in the United States. Each of these organizations requires its members, through its Code of Professional Conduct, to observe the Actuarial Standards of Practice when practicing in the United States.

A handwritten signature in dark ink, reading "Robert J. Moss". The signature is written in a cursive, flowing style.

Robert Moss, ACAS, MAAA  
Assistant Actuary  
Actuarial & Economic Services



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Disclosures

##### Purpose of the Report

The purpose of this report is to provide the proposed advisory rates and loss costs, assigned risk rates, and rating values for workers compensation policies in Indiana, proposed to be effective January 1, 2018. The intended users of this report are:

- The Indiana Department of Insurance
- Affiliated carriers, for their reference in determining workers compensation rates

##### Scope

The prospective advisory rates are intended to cover the indemnity and medical benefits provided under the system, the expenses associated with providing these benefits (loss adjustment expenses) and any other costs associated with providing workers compensation insurance (such as commissions, taxes, etc.).

The filing also contains advisory loss costs. The prospective loss costs are intended to cover the indemnity and medical benefits provided under the system, as well as some of the expenses associated with providing these benefits (loss adjustment expenses). They do not, however, contemplate any other costs associated with providing workers compensation insurance (such as commissions, taxes, etc.).

Carriers offering workers compensation insurance in Indiana may desire to a) adopt the advisory rates which are based on NCCI's compilations of expense data, b) deviate from the advisory rates, or c) adopt the advisory loss costs to which they would apply their own expense provisions. The latter option can be accomplished through a loss cost multiplier that is applied to the approved advisory prospective loss costs in order to compute the final workers compensation rates that a carrier intends to charge. This multiplier is intended to cover the other costs associated with providing workers compensation insurance that are not already part of the advisory prospective loss costs.

Employers unable to secure coverage in the voluntary market can apply for such coverage in the assigned risk market. The proposed rates for the voluntary market are also applicable to the assigned risk policies, with a proposed effective date of January 1, 2018. Currently, assigned risk policies with premium greater than \$2,500 are assessed a 25% surcharge, with the surcharge being applied to the premium amount above \$2,500. This filing proposes no change to the assigned risk surcharge.



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Disclosures

##### Data Sources and Dates

The overall average loss cost level change is based on a review of Financial Call Data, which is an aggregation of workers compensation data annually reported to NCCI. In this filing, Financial Call Data submissions received after July 25, 2017 were not considered for inclusion in the analysis.

Advisory rate and loss cost level changes at the classification code level are based on Unit Statistical Data, which is the audited exposure, premium and loss information reported to NCCI on a policy level. In this filing, Unit Statistical Data submissions received after July 14, 2017 were not considered for inclusion in the analysis.

In some areas, NCCI's analysis also relies on other data sources, which are reviewed for reasonableness and are referenced in the filing where applicable.

This filing was prepared as of August 23, 2017. Therefore, events that occurred after this date that may have a material impact on workers compensation costs in this jurisdiction have not been considered in the analysis.

NCCI maintains several data reporting initiatives and programs to assist carriers to report data and to ensure that the data that is reported to NCCI is complete, accurate, and reported in a timely fashion. Occasionally, a carrier's data submission is not available for use in an NCCI filing either because the data was not reported prior to the filing, had quality issues, or NCCI determined that the data that was reported should not be included in the filing based on NCCI's actuarial judgment.

Data for all carriers writing at least one-tenth of one percent of the Indiana workers compensation written premium volume have been included in the experience period on which this filing is based.

Other exclusions are made for the purposes of analysis, but do not have a material impact on the proposed changes in this filing.

##### Methodology Changes

Two changes were made to the General and Production Expense Provision Calculations shown in Exhibit II:

1. The calculation of "Effect of Carrier Deviations" was updated to adjust the Company Standard Premium to remove an average Profit and Contingency provision of 2.5% and



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Disclosures

an Expense Constant of \$160 for those states where NCCI files loss costs. This change was made to better capture deviations in Company Standard Premium relative to NCCI level premium not including Profit and Contingency or Expense Constant. This change impacts the calculation of "Gross Adjusted Premium" for the General Expense Provision and the calculation of "Gross Direct Written Premium" for the Production Expense Provision.

2. The calculation of "Adjusted Direct Written Premium" was changed to no longer adjust for the effect of schedule rating and carrier deviations. This change was made to better align the commissions paid with the premium dollars upon which they were based. This change impacts the calculation of "Direct Commission & Brokerage Provision" for the Production Expense Provision.

The impact of these changes was negligible to the overall General and Production Expense Provisions.

#### Risks and Uncertainty

This filing includes assumptions and projections concerning the future. As with any prospective analysis, there exists estimation uncertainty in these assumptions and projections. Areas of this analysis subject to estimation uncertainty that could have a material impact on the final results include the following:

- Projection of future loss development
- Selection of loss ratio trends
- Potential impact of changes to laws and/or regulations

In addition, any future changes to workers compensation law or regulations that apply retroactively to policies or benefit claims on policies in the proposed effective period may have a significant impact on the adequacy of the advisory rates and loss costs proposed in this filing.



## Indiana

# Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

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- Selections Underlying the Proposed Changes
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- Proposed Assigned Risk Rates and Rating Values
- Proposed Values for Inclusion in the Experience Rating Plan Manual
- Proposed Values for Inclusion in the Retrospective Rating Plan Manual

### Part 3 Supporting Exhibits

- Exhibit I: Determination of the Indicated Rate Level Change
- Exhibit II: Workers Compensation Expense Program
- Appendix A: Factors Underlying the Proposed Advisory Rate Level Change
- Appendix B: Calculations Underlying the Rate Change by Classification
- Appendix C: Memoranda for Laws and Assessments

### Part 4 Additional Information

- Definitions
- Key Contacts



## Indiana

### **Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018**

#### **Part 1 Filing Overview**

- Executive Summary
- Overview of Methodology
- Summary of Selections
- Selections Underlying the Proposed Changes
- Additional Proposed Changes



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Executive Summary

Based on its review of the most recently available data, NCCI has proposed an overall average workers compensation advisory loss cost level change of -12.1% and an advisory rate level change of -12.8% to become effective January 1, 2018. In addition, NCCI has proposed an overall average assigned risk rate level change of -12.8%, also to become effective January 1, 2018.

#### Advisory Rate Filing Components

Change in Experience and Development	- 11.1%
Change in Trend	- 1.8%
Change in Benefits	+ 0.6%
<u>Change in Loss-based Expenses</u>	<u>+ 0.1%</u>
<b>Proposed Change in Overall Advisory Loss Cost Level</b>	<b>- 12.1%</b>
Change in Production & General Expenses and Taxes	- 0.1%
<u>Change in Profit and Contingency Provision</u>	<u>- 0.7%</u>
<b>Proposed Change in Overall Advisory Rate Level</b>	<b>- 12.8%</b>
<b>Proposed Change in Overall Assigned Risk Rate Level</b>	<b>- 12.8%</b>

#### Key observations:

- The filing is based on premium and loss experience for policy years 2014 and 2015. The financial data experience period evaluated as of December 31, 2016 shows continued improvement when compared with data evaluated as of December 31, 2015.
- Indiana's lost-time claim frequency decreased 7.0% in the latest complete policy year available (2015).
- After adjusting to a common wage level, the indemnity average cost per case shows a slightly decreasing pattern, while the long-term upward trend in the medical average cost per case seems to be moderating as a result of the medical fee schedules that became effective July 1, 2014.



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Executive Summary

##### Proposed Changes in Advisory Rate Level by Industry Group:

<u>Industry Group</u>	<u>Average Change</u>	<u>Maximum Increase</u>	<u>Maximum Decrease</u>
Manufacturing	- 12.2%	+ 13%	- 37%
Contracting	- 14.5%	+ 11%	- 39%
Office and Clerical	- 14.0%	+ 11%	- 39%
Goods and Services	- 12.8%	+ 12%	- 38%
Miscellaneous	- 11.6%	+ 13%	- 37%

##### Additional Notable Change(s) Proposed in the Filing:

- Updated terrorism advisory loss cost, advisory rate, and assigned risk rate
- Revised deductible credit safety factor





## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Overview of Methodology

##### Aggregate Ratemaking

NCCI's approach to determining the proposed overall average advisory rate level change utilizes widely accepted ratemaking methodologies. The approach employed in this filing includes the following steps:

- The reported historical premium totals are projected to an ultimate basis and adjusted to the current pure premium level
- The excess loss portion of individual large claims are removed from reported aggregate losses, based on an Indiana-specific large loss threshold
- The reported historical limited indemnity and medical loss totals are projected to an ultimate basis and adjusted to the current benefit level
- Ratios of losses to pure premium are projected to the cost levels expected in the loss cost effective period
- Ultimate, trended, limited losses are adjusted to an unlimited basis with an excess ratio
- Proposed benefit level and/or expense changes are applied to the projected cost ratios

The indicated average advisory rate level change is calculated for the years in the filing's experience period. If the final projected cost ratios are greater (less) than 1.000, then an increase (decrease) in the average advisory rate level is indicated.

##### Class Ratemaking

Once the proposed overall average advisory rate level change has been determined, NCCI separately determines rates per \$100 of payroll for each workers compensation job classification (class); the advisory rates and year-over-year changes vary by class. Three sets of pure premiums are combined as part of each class code's advisory rate calculation based on the volume of available data for that job classification. The three sets of pure premiums are:

- State-specific payroll and loss experience ("indicated")
- Currently-approved pure premium adjusted to the proposed level ("present on rate level")
- Countrywide experience adjusted to state conditions ("national")

Note: The methodology and assumptions used in this filing may not be applicable to or relevant for another purpose, including but not limited to NCCI filings in other jurisdictions.



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Summary of Selections

The following is a summary of selections underlying the advisory rates and loss costs and assigned risk rates proposed to be effective January 1, 2018, along with the selections underlying the currently-approved rates and loss costs.

<b>Advisory Rates and Loss Costs</b>	<b>Currently Approved January 1, 2017</b>	<b>Proposed Effective January 1, 2018</b>
Experience Period	Policy Years 2013 and 2014	Policy Years 2014 and 2015
Premium Development	3-year average	3-year average
Basis of Loss Experience	Average of Paid and Paid+Case losses	Average of Paid and Paid+Case losses
Paid Loss Development	2-year average	2-year average
Paid+Case Loss Development	5-year average	5-year average
Tail Factors	10-year average	10-year average
Indemnity Annual Loss Ratio Trend Factor	0.965	0.960
Medical Annual Loss Ratio Trend Factor	1.000	0.995
Production and General Expense	23.4%	23.3%
Profit and Contingency Provision	2.5%	2.0%
Loss Adjustment Expense Provision	16.5%	16.6%
Base Threshold for Limiting Losses	\$8,677,391	\$9,086,441
Large Loss Excess Ratio	0.3%	0.2%
Classification Swing Limits (applied by Industry Group)	+/-25%	+/-25%
<b>Assigned Risk Rates</b>	<b>Currently Approved January 1, 2017</b>	<b>Proposed Effective January 1, 2018</b>
Surcharge on premium in excess of \$2,500	25%	25%



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Selections Underlying the Proposed Changes

##### Experience and Development

NCCI analyzed the emerging experience of Indiana workers compensation policies in recent years. The primary focus of our analysis was on premiums and losses from policy years 2014 and 2015 evaluated as of December 31, 2016. The most recently available full policy year is 2015 since the last policy had an effective date of December 31, 2015 and did not expire until December 31, 2016. During this year's analysis, after reviewing various possible experience periods, the use of the two most recently available full policy years of data was selected as most appropriate in terms of providing balance between stability and responsiveness.

Different aggregations of loss experience were analyzed in preparation of this filing. These were (i) paid losses (benefit amounts already paid by insurers on reported claims) and (ii) the sum of paid losses plus case reserves (paid losses and the amounts set aside to cover future payments on those claims). In this filing, NCCI utilized loss development factors based on each of these two loss aggregations. This is consistent with NCCI filings made in the past several years in Indiana. Loss development factors are needed since paid losses and case reserve estimates on a given claim change over time until the claim is finally closed. The loss development factors are based on how paid losses and case reserve estimates changed over time for claims from older years. In this filing, NCCI selected development factors appropriate for the experience base.

##### Trend

This filing relies primarily on the experience from policy years 2014 and 2015. However, the proposed advisory loss cost, advisory rate, and assigned risk rates are intended for use with policies with effective dates starting on January 1, 2018. It is necessary to use trend factors that forecast how much the future Indiana workers compensation experience will differ from the past. These trend factors measure anticipated changes in the amount of indemnity and medical benefits as compared with anticipated changes in the amount of workers' wages. For example, if benefit costs are expected to grow faster than wages, then a trend factor greater than zero is indicated. Conversely, if wages are expected to grow faster than benefit costs, then a trend factor less than zero is indicated.

While historical changes in claim frequency and average cost per case were also reviewed, NCCI applies loss ratio trend factors in the determination of the proposed overall average advisory rate level change.



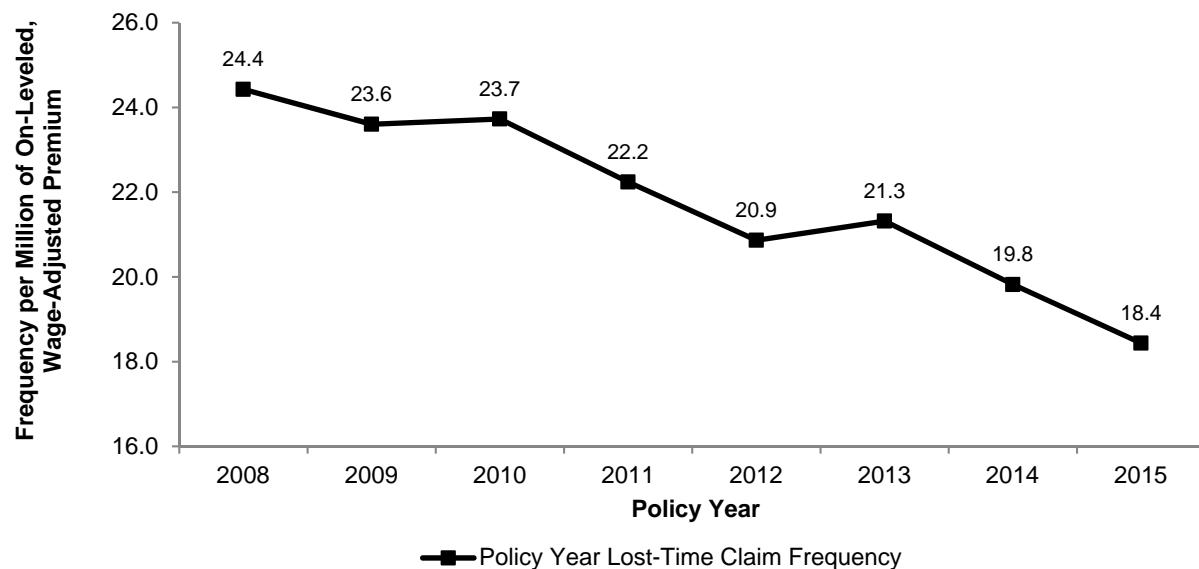
## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Selections Underlying the Proposed Changes

The following few charts show a measure of the number of workplace injuries (claim frequency) and the average cost of each of these injuries (claim severity).

#### Indiana Claim Frequency



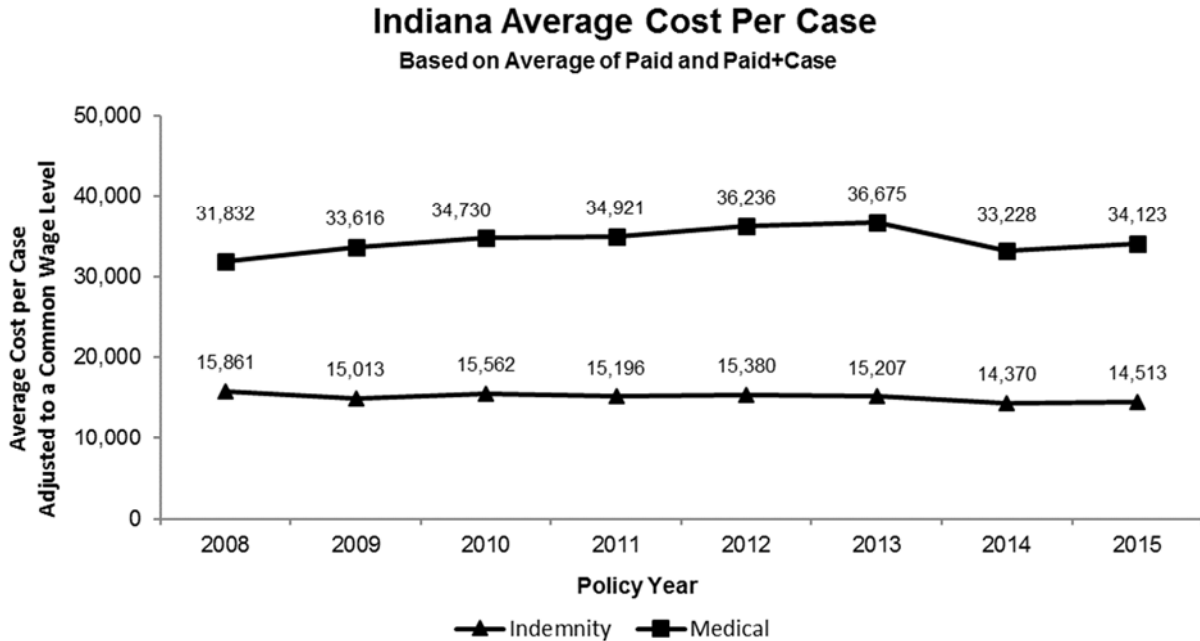
Indiana's lost-time claim frequency has generally declined since 2008, as shown immediately above. The data in this chart reflects premiums at today's advisory rate and wage levels.



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Selections Underlying the Proposed Changes



As this chart illustrates, Indiana's average indemnity cost per case in excess of wage growth has remained fairly consistent over time, while a long-term upward trend in the medical average cost per case was interrupted in PY 2014 due to the medical fee schedule implementation as part of HEA 1320.

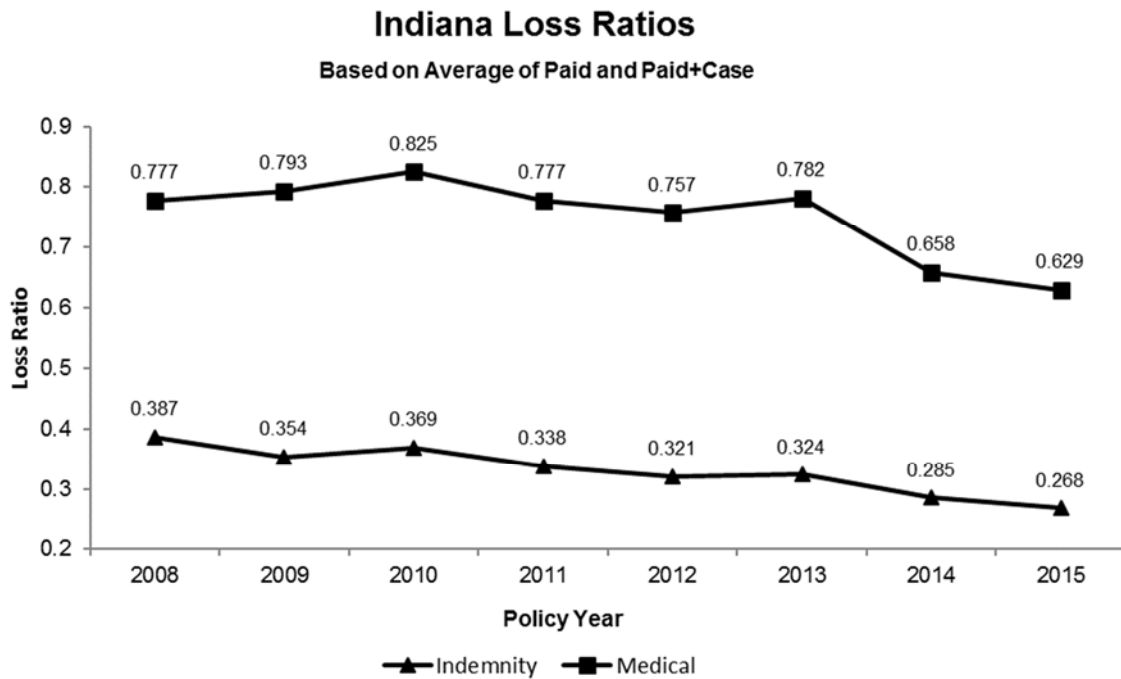


## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Selections Underlying the Proposed Changes

Loss ratios result after combining observed changes in Indiana's average claim frequency with corresponding changes in Indiana's average cost per case.



Based on our analysis this year, we are proposing to decrease the annual indemnity loss ratio trend from –3.5% to –4.0% and the annual medical loss ratio trend from +0.0% to –0.5%.



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Selections Underlying the Proposed Changes

##### Benefit Changes

**Indemnity Benefit Changes:** Workers injured in Indiana receive wage replacement (indemnity) benefits at a rate of two-thirds of their pre-injury weekly wage. These benefits are subject to a weekly minimum and maximum. In Indiana, legislation must be enacted to change benefit levels. Since no legislation was enacted with respect to a change in indemnity benefits for the prospective policy period, there are no indemnity benefit changes included in the 1/1/2018 filing.

**Medical Fee Schedule Changes:** NCCI has included the impact of the two most recent Medical Fee Schedule updates effective October 1, 2016 and January 1, 2017. The combined change is estimated to increase overall workers compensation system costs by 0.6%. Please see Appendix C-I for additional details.

##### Expense-Related Provisions

This filing proposes changes to several expense-related provisions as described below. Please see Exhibit II for additional detail.

**Production and General Expense:** The proposed advisory rates include a provision for production and general expenses. The latest data from the Insurance Expense Exhibit (which is reported annually by insurers to state insurance departments) is used to derive the Indiana expense provision.

The current provision in the advisory rates for production expense is 18.2% of premium. This filing proposes an increase in this provision to 18.3%.

The current provision in the advisory rates for general expenses is 5.2% of premium. This filing proposes a decrease in this provision to 5.0% of premium.

The overall advisory rate change due to the proposed production and general expense provisions is a decrease of 0.1%.

In this year's filing, the denominator of the "direct commission and brokerage provision" was adjusted to better align the commissions paid with the premium dollars upon which they were based. Secondly, this review also resulted in an improved matching between the company and NCCI-level premium utilized in the "effect of carrier deviations" component of the production and general expense provisions. The impact of these two changes was negligible with respect to the overall proposed production and general



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Selections Underlying the Proposed Changes

expense provisions.

**Premium Taxes and Assessments:** This filing proposes no change to the currently approved provision for taxes and assessments of 1.6%.

**Profit and Contingency Provision:** By law, Indiana rates must be determined such that workers compensation insurers in Indiana can be expected to earn a reasonable rate of return. Analysis and determination of a profit and contingency (P&C) provision is necessary to ensure this premise is maintained. In this filing, NCCI is proposing to lower the current P&C provision from 2.5% to 2.0%—resulting in a rate level impact of –0.7%.

**Loss-Based Expenses:** The proposed advisory rates and loss costs include a provision for loss adjustment expenses (LAE). These are expenses associated with the handling of workers compensation claims. LAE is included in the advisory rates and loss costs by using a ratio of loss adjustment expense dollars to loss dollars (called the LAE provision). In this filing, NCCI is proposing to increase the current LAE provision from 16.5% to 16.6% of losses—resulting in a rate level impact of +0.1%.





## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Additional Proposed Changes

##### Updated Terrorism Advisory Loss Cost, Advisory Rate, and Assigned Risk Rate

As a result of NCCI's most recent analysis, the proposed terrorism advisory rate and loss cost per \$100 of payroll in Indiana decreased from \$0.02 and \$0.01 to \$0.01 and \$0.005, respectively.

The proposed assigned risk terrorism rate per \$100 of payroll in Indiana decreased from \$0.02 to \$0.01.

**Background:** The Terrorism Risk Insurance Act of 2002 ("TRIA" or the "Act") was implemented since Congress recognized that terrorism is a catastrophe exposure that is real and significant for insurers of workers compensation and other lines of insurance.

TRIA 2002 was renewed and amended as TRIE in 2005 and as TRIPRA in 2007.

The U.S. Congress passed the Terrorism Risk Insurance Plan Reauthorization Act (TRIPRA 2015), which changed various coverage parameters for certified terrorism losses and generally increased carriers' financial responsibility (and thus decreased the U.S. Government's financial support). TRIPRA of 2015 is set to expire on 12/31/2020.

Each jurisdiction's terrorism miscellaneous value was initially based on the result of one of six modeled states. Over the years, NCCI has submitted Item filings that proposed changes to the miscellaneous values, rules, and policy forms. In addition to changes in the law itself, NCCI anticipated that the risk and cost of terrorism losses may have changed over time.

**NCCI Analysis:** NCCI worked with expert catastrophe loss modeling firms to assess the impact of terrorism risk on workers compensation insurance losses. NCCI selected results which included an estimated average terrorism workers compensation loss dollar amount per worker for each NCCI jurisdiction under TRIPRA 2015 parameters and provisions.

NCCI converted those estimates from the modeling firms to a rate per \$100 payroll using average weekly wage information and currently approved loss-based expense provisions, by jurisdiction. NCCI relied on average weekly wage information from the Bureau of Labor Statistics Quarterly Census of Employment and Wages—which is consistent with what NCCI uses in other areas of its filings. The starting point for the proposed terrorism miscellaneous value rate is the indicated terrorism rate for Indiana and is loaded for all currently approved expenses and rounded to the nearest penny.



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Additional Proposed Changes

##### Revised Deductible Credit Safety Factor

This filing proposes to increase the Deductible Credit Safety Factor (“safety factor”) currently in effect in this jurisdiction’s voluntary/assigned risk market from the currently approved value of 0.70 to 0.95. This change will result in larger premium credits for employers that select a deductible under the small deductible program. The overall impact to statewide premium is estimated to be negligible (less than 0.1%).

The safety factor is applied to the Loss Elimination Ratio (LER) in the deductible credit formula so that the credit is appropriate for the insured population that selects a small deductible. The factor reflects components for adverse selection, credit default, loss of investment income, and increased variance. Below are the proposed provisions and the currently approved provisions:

Component	Current Provision	Proposed Provision
A. Adverse Selection	25.0%	0.0%
B. Credit Default	2.7%	0.8%
C. Loss of Investment Income	1.3%	0.8%
D. Increased Variance	4.0%	3.8%
Indicated Safety Factor [ $=(1-A) \times (1-B) \times (1-D) / (1+C)$ ]	0.69	0.95
Selected Safety Factor	<b>0.70</b>	<b>0.95</b>

NCCI’s recent safety factor analysis examined each of the four components:

- Adverse Selection – this component accounts for the possibility that an insured may choose a deductible because the premium credit is greater than losses expected in the deductible layer. The analysis of the component compared experience for deductible selectors to experience for all risks at the state and hazard group level utilizing total expected losses. Results indicated an adverse selection component of 0.0%.
- Credit Default – this component accounts for the possibility that the insured will default on the obligation to reimburse the insurer for losses in the deductible layer. It is based on the U.S. bankruptcy rates for years 2009 to 2013. The average rate over this period was 0.8%<sup>1</sup>.
- Loss of Investment Income – this component is intended to provide a reasonable return on the lent premium for the time between insurer payment of deductible layer losses and insured reimbursement of same. It is based on the interest rate forecasted for the 3-

<sup>1</sup> U.S. District Courts: Administrative offices - Bankruptcies; Moody's Analytics Aggregated; U.S. Census Bureau, Statistics of U.S. Businesses (SUSB).



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Additional Proposed Changes

month Treasury bill for years 2018 through 2022. The average rate over this period was 3.3%<sup>2</sup>. The payback period was assumed to be 3 months, so the loss of investment income component over this period is 0.8% ( $= 1.033^{3/12} - 1$ ).

- Increased Variance – small deductibles (less than \$10,000) have a greater impact on the variability of the average claim size than on the average claim size itself. The increased variance component accounts for the increased risk resulting from the removal of the stabilizing impact of small losses. It is calculated based on the procedure developed by Rollins and Washburn<sup>3</sup>, which incorporates the variance principle for risk as suggested by Miccolis<sup>4</sup>. The variance principle states that the risk provision is proportional to the variance of the pure premium dollars. This analysis indicated an increased variance component of 3.8%.

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<sup>2</sup> U.S. Board of Governors of the Federal Reserve System (FRB); Moody's Analytics Forecast, last updated 2/8/2016.

<sup>3</sup> J. Rollins and M.J. Washburn, "A Quantification of Snader's Deductible Safety Factor", CAS Forum Winter 1994, pp. 383-411.

<sup>4</sup> R. Miccolis, "On Theory of Increased Limits and Excess Loss Pricing", PCAS LXIV, 1977, pp. 27–59.



## Indiana

### **Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018**

#### **Part 2 Proposed Values**

- Proposed Advisory Rates, Loss Costs and Rating Values
- Proposed Assigned Risk Rates and Rating Values
- Proposed Values for Inclusion in the Experience Rating Plan Manual
- Proposed Values for Inclusion in the Retrospective Rating Plan Manual



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Proposed Advisory Rates, Loss Costs, and Rating Values

The following pages include proposed advisory rates, loss costs, and rating values:

- Advisory rates, loss costs, minimum premiums, expected loss rates, and d-ratios by class code, along with associated footnotes
- Advisory miscellaneous values, such as:
  - Premium discount percentages
  - Premium Reduction Percentages by Deductible Amount
  - Maximum and minimum weekly payroll applicable for select class codes
  - Premium determination for Partners and Sole Proprietors
  - Terrorism advisory rate and loss cost
  - United States Longshore and Harbor Workers' Compensation Coverage Percentage

# ADVISORY LOSS COSTS AND ADVISORY RATES

INDIANA

Advisory loss costs exclude all expense provisions except loss adjustment expense.

Effective January 1, 2018

CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO
0005	2.40	1.75	916	1.33	0.43	2014	3.01	2.20	1108	1.55	0.36
0008	2.23	1.63	862	1.19	0.41	2016	2.69	1.97	1007	1.51	0.44
0016	4.58	3.35	1500	2.32	0.36	2021	1.60	1.17	664	0.85	0.41
0034	2.55	1.86	963	1.41	0.43	2039	1.20	0.88	538	0.69	0.44
0035	1.90	1.39	759	1.06	0.44	2041	1.95	1.43	774	1.10	0.44
0036	2.60	1.90	979	1.46	0.43	2065	1.06	0.77	494	0.59	0.43
0037	2.98	2.18	1099	1.60	0.41	2070	3.06	2.24	1124	1.70	0.43
0042	3.75	2.74	1341	2.01	0.41	2081	1.80	1.32	727	0.99	0.43
0050	4.73	3.46	1500	2.62	0.43	2089	2.05	1.50	806	1.15	0.43
0059D	0.33	0.24	—	0.08	0.36	2095	2.19	1.60	850	1.22	0.43
0065D	0.07	0.05	—	0.02	0.36	2105	1.95	1.43	774	1.10	0.44
0066D	0.07	0.05	—	0.02	0.36	2110	1.92	1.40	765	1.08	0.44
0067D	0.07	0.05	—	0.02	0.36	2111	1.38	1.01	595	0.78	0.44
0079	4.20	3.07	1483	2.21	0.36	2112	2.92	2.13	1080	1.63	0.44
0083	3.39	2.48	1228	1.88	0.43	2114	1.92	1.40	765	1.09	0.44
0106	6.15	4.50	1500	2.97	0.32	2121	1.40	1.02	601	0.77	0.43
0113	2.59	1.89	976	1.44	0.43	2130	1.60	1.17	664	0.89	0.43
0170	2.84	2.08	1055	1.58	0.43	2131	1.19	0.87	535	0.67	0.43
0251	2.05	1.50	806	1.15	0.43	2143	1.19	0.87	535	0.67	0.44
0400	—	—	—	0.84	0.41	2157	2.91	2.13	1077	1.63	0.43
0401	7.92	5.79	A	3.82	0.32	2172	0.87	0.64	434	0.47	0.42
0766N	0.31	0.23	—	—	—	2174	1.46	1.07	620	0.83	0.44
0771N	0.28	0.20	—	—	—	2211	5.11	3.74	1500	2.64	0.36
0908P	142.00	104.00	302	78.96	0.43	2220	1.29	0.94	566	0.72	0.43
0913P	297.00	217.00	457	166.61	0.43	2286	0.94	0.69	456	0.54	0.44
1005*	2.60	1.90	979	0.86	0.31	2288	2.95	2.16	1089	1.67	0.44
1016X*	8.51	6.22	1500	2.87	0.31	2300	—	—	—	0.97	0.43
1164D	2.21	1.62	856	1.00	0.31	2302	1.11	0.81	510	0.62	0.43
1165D	1.69	1.23	692	0.81	0.32	2305	1.23	0.90	547	0.67	0.42
1320	2.98	2.18	1099	1.42	0.32	2361	1.28	0.94	563	0.71	0.43
1322	6.08	4.44	1500	3.02	0.32	2362	1.00	0.73	475	0.56	0.43
1430	2.68	1.96	1004	1.37	0.36	2380	1.93	1.41	768	1.08	0.43
1438	2.69	1.97	1007	1.31	0.32	2386	—	—	—	0.97	0.43
1452	1.41	1.03	604	0.73	0.36	2388	1.23	0.90	547	0.70	0.44
1463	8.37	6.12	1500	4.02	0.32	2402	1.69	1.24	692	0.86	0.36
1472	1.98	1.45	784	0.95	0.32	2413	1.89	1.38	755	1.05	0.43
1604X	2.47	1.81	938	1.29	0.36	2416	1.20	0.88	538	0.67	0.43
1624D	1.41	1.03	604	0.67	0.32	2417	0.82	0.60	418	0.46	0.43
1642	1.20	0.88	538	0.62	0.36	2501	1.75	1.28	711	0.97	0.43
1654	4.33	3.17	1500	2.23	0.36	2503	0.97	0.71	466	0.55	0.44
1655	—	—	—	0.62	0.36	2534X	1.58	1.15	658	0.89	0.44
1699	1.80	1.32	727	0.92	0.36	2570	2.46	1.80	935	1.40	0.44
1701	2.27	1.66	875	1.16	0.36	2585	2.04	1.49	803	1.16	0.44
1710D	2.86	2.09	1061	1.44	0.36	2586	1.28	0.94	563	0.71	0.43
1741	—	—	—	1.16	0.36	2587	1.60	1.17	664	0.92	0.44
1747	1.20	0.88	538	0.62	0.36	2589	1.32	0.96	576	0.74	0.43
1748	5.02	3.67	1500	2.53	0.35	2600	2.33	1.70	894	1.34	0.44
1803D	5.06	3.69	1500	2.18	0.32	2623	4.34	3.17	1500	2.33	0.41
1852	—	—	—	0.64	0.31	2651	0.75	0.55	396	0.42	0.44
1853	—	—	—	1.16	0.36	2660	1.34	0.98	582	0.75	0.44
1860X	1.25	0.91	554	0.70	0.43	2670	1.20	0.88	538	0.71	0.49
1924	1.48	1.08	626	0.84	0.44	2683	1.35	0.99	585	0.76	0.44
1925	2.36	1.73	903	1.25	0.41	2688	1.78	1.30	721	1.01	0.44
2002	1.70	1.24	696	0.96	0.44	2701	12.29	8.98	1500	6.23	0.36
2003	2.91	2.13	1077	1.62	0.43	2702	15.24	11.14	1500	6.99	0.31

\* Refer to the Footnotes Page for additional information on this class code.

**ADVISORY LOSS COSTS AND ADVISORY RATES****INDIANA**

Advisory loss costs exclude all expense provisions except loss adjustment expense.

Effective January 1, 2018

CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO
2709	8.23	6.02	1500	4.24	0.36	3224	1.96	1.43	777	1.13	0.44
2710	6.54	4.78	1500	3.14	0.32	3227	2.10	1.54	822	1.19	0.44
2714	3.27	2.39	1190	1.85	0.44	3240	2.04	1.49	803	1.16	0.44
2731	3.24	2.37	1181	1.65	0.36	3241	1.61	1.18	667	0.90	0.43
2735	3.57	2.61	1285	2.00	0.44	3255	1.51	1.10	636	0.88	0.49
2759	5.28	3.86	1500	3.00	0.44	3257	1.66	1.21	683	0.92	0.43
2790	1.17	0.86	529	0.66	0.44	3270	1.37	1.00	592	0.76	0.43
2797	1.81	1.32	730	1.01	0.43	3300	4.65	3.40	1500	2.54	0.43
2799	3.78	2.76	1351	2.02	0.41	3303	2.63	1.92	988	1.48	0.44
2802	3.79	2.77	1354	2.04	0.41	3307	2.42	1.77	922	1.34	0.43
2835	1.67	1.22	686	0.99	0.49	3315	2.34	1.71	897	1.33	0.44
2836	1.45	1.06	617	0.85	0.49	3334	1.35	0.99	585	0.77	0.43
2841	2.45	1.79	932	1.38	0.44	3336	1.55	1.13	648	0.79	0.36
2881	1.95	1.43	774	1.14	0.49	3365	3.75	2.74	1341	1.92	0.36
2883	1.76	1.29	714	0.98	0.43	3372	2.16	1.58	840	1.15	0.41
2913	—	—	—	0.98	0.43	3373	3.57	2.61	1285	2.04	0.43
2915	1.95	1.43	774	1.05	0.41	3383	0.82	0.60	418	0.46	0.44
2916	2.40	1.75	916	1.16	0.32	3385	0.47	0.34	308	0.27	0.44
2923	1.81	1.32	730	1.02	0.44	3400	2.74	2.00	1023	1.45	0.41
2942	—	—	—	0.54	0.49	3507	1.93	1.41	768	1.08	0.43
2960	3.16	2.31	1155	1.76	0.43	3515	1.60	1.17	664	0.88	0.43
3004	0.85	0.62	428	0.44	0.36	3548	0.97	0.71	466	0.54	0.43
3018	1.66	1.21	683	0.85	0.36	3559	1.73	1.26	705	0.96	0.43
3022	1.99	1.45	787	1.13	0.44	3574	0.91	0.67	447	0.51	0.44
3027	1.89	1.38	755	0.96	0.36	3581	0.82	0.60	418	0.46	0.44
3028	1.81	1.32	730	1.01	0.43	3612	1.55	1.13	648	0.83	0.41
3030	4.08	2.98	1445	2.08	0.36	3620	2.60	1.90	979	1.32	0.36
3040	3.85	2.81	1373	1.97	0.36	3629	1.28	0.94	563	0.73	0.44
3041	3.29	2.40	1196	1.81	0.43	3632	1.67	1.22	686	0.90	0.41
3042	2.16	1.58	840	1.16	0.41	3634	1.19	0.87	535	0.67	0.44
3064	3.13	2.29	1146	1.76	0.43	3635	1.70	1.24	696	0.94	0.43
3069	—	—	—	1.16	0.43	3638	0.93	0.68	453	0.52	0.44
3076	2.08	1.52	815	1.16	0.43	3642	1.43	1.05	610	0.79	0.43
3081D	2.91	2.13	1077	1.46	0.36	3643	1.45	1.06	617	0.80	0.43
3082D	2.93	2.14	1083	1.45	0.36	3647	1.35	0.99	585	0.73	0.41
3085D	2.52	1.84	954	1.26	0.36	3648	1.06	0.77	494	0.60	0.44
3110	2.16	1.58	840	1.21	0.43	3681	0.76	0.56	399	0.43	0.44
3111	1.87	1.37	749	1.04	0.43	3685	0.55	0.40	333	0.31	0.44
3113	1.16	0.85	525	0.64	0.43	3719	0.50	0.37	318	0.23	0.31
3114	1.80	1.32	727	1.01	0.43	3724	2.50	1.83	948	1.21	0.32
3118	1.11	0.81	510	0.64	0.44	3726	2.19	1.60	850	1.02	0.31
3119	0.58	0.42	343	0.34	0.49	3803	1.78	1.30	721	1.00	0.43
3122	1.19	0.87	535	0.67	0.44	3807	1.40	1.02	601	0.79	0.44
3126	1.11	0.81	510	0.61	0.43	3808	2.68	1.96	1004	1.44	0.41
3131	1.06	0.77	494	0.59	0.43	3821X	4.94	3.61	1500	2.63	0.41
3132	2.02	1.48	796	1.12	0.43	3822X	2.84	2.08	1055	1.50	0.41
3145	1.81	1.32	730	1.00	0.43	3824X	2.02	1.48	796	1.09	0.41
3146	1.45	1.06	617	0.80	0.43	3826	0.38	0.28	280	0.21	0.43
3169	1.48	1.08	626	0.82	0.43	3827	1.81	1.32	730	0.97	0.41
3175	—	—	—	0.82	0.43	3830	1.17	0.86	529	0.62	0.41
3179	1.16	0.85	525	0.65	0.44	3851	2.01	1.47	793	1.14	0.44
3180	1.69	1.24	692	0.96	0.44	3865	1.13	0.83	516	0.66	0.49
3188	1.06	0.77	494	0.60	0.44	3881	3.65	2.67	1310	2.03	0.43
3220	1.11	0.81	510	0.62	0.43	4000	4.22	3.08	1489	2.05	0.32
3223	—	—	—	0.96	0.44	4021	2.72	1.99	1017	1.38	0.36

\* Refer to the Footnotes Page for additional information on this class code.

# ADVISORY LOSS COSTS AND ADVISORY RATES

INDIANA

Advisory loss costs exclude all expense provisions except loss adjustment expense.

Effective January 1, 2018

CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO
4024D	2.87	2.10	1064	1.45	0.36	4653	1.52	1.11	639	0.85	0.44
4034	3.94	2.88	1401	2.01	0.36	4665	3.18	2.32	1162	1.63	0.36
4036	1.93	1.41	768	0.98	0.36	4670	4.82	3.52	1500	2.45	0.36
4038	1.60	1.17	664	0.95	0.49	4683	3.09	2.26	1133	1.72	0.43
4053X	1.54	1.13	645	0.86	0.43	4686	1.29	0.94	566	0.66	0.36
4061X	2.51	1.83	951	1.44	0.44	4692	0.55	0.40	333	0.31	0.44
4062	1.78	1.30	721	1.00	0.43	4693	0.59	0.43	346	0.33	0.43
4101	1.60	1.17	664	0.85	0.41	4703	1.05	0.77	491	0.59	0.43
4109	0.30	0.22	255	0.17	0.44	4716X	2.11	1.54	825	1.21	0.44
4110	0.47	0.34	308	0.26	0.43	4717	1.28	0.94	563	0.76	0.49
4111	1.23	0.90	547	0.70	0.44	4720	1.13	0.83	516	0.63	0.43
4113X	1.58	1.15	658	0.87	0.43	4740	0.47	0.34	308	0.24	0.36
4114	1.69	1.24	692	0.94	0.43	4741	1.41	1.03	604	0.80	0.43
4130	2.02	1.48	796	1.12	0.43	4751	1.45	1.06	617	0.73	0.36
4131	3.67	2.68	1316	2.06	0.44	4766NX	2.24	1.64	963	1.03	0.31
4133	1.26	0.92	557	0.71	0.44	4771NX	1.58	1.15	746	0.72	0.31
4149	0.40	0.29	286	0.23	0.49	4777	2.05	1.50	806	0.95	0.31
4206	1.48	1.08	626	0.83	0.43	4825	0.52	0.38	324	0.26	0.36
4207	1.31	0.96	573	0.66	0.36	4828	1.57	1.15	655	0.83	0.41
4239	1.34	0.98	582	0.68	0.36	4829	0.93	0.68	453	0.45	0.32
4240	2.22	1.62	859	1.25	0.44	4902	2.98	2.18	1099	1.70	0.44
4243	1.61	1.18	667	0.90	0.43	4923	0.62	0.45	355	0.35	0.43
4244	1.66	1.21	683	0.93	0.43	5020	3.20	2.34	1168	1.65	0.36
4250	1.08	0.79	500	0.60	0.43	5022	3.59	2.62	1291	1.76	0.32
4251	1.81	1.32	730	1.01	0.43	5037	6.77	4.95	1500	3.10	0.31
4263	2.05	1.50	806	1.14	0.43	5040	4.85	3.55	1500	2.22	0.31
4273	1.32	0.96	576	0.74	0.43	5057	3.33	2.43	1209	1.55	0.31
4279	1.25	0.91	554	0.70	0.43	5059	9.08	6.64	1500	4.15	0.31
4282X	1.25	0.91	554	0.70	0.43	5069	—	—	—	4.15	0.31
4283	0.76	0.56	399	0.42	0.43	5102	2.83	2.07	1051	1.37	0.32
4299	1.34	0.98	582	0.76	0.44	5146	2.44	1.78	929	1.25	0.36
4304	4.02	2.94	1426	2.14	0.41	5160	1.37	1.00	592	0.67	0.32
4307	1.28	0.94	563	0.75	0.49	5183	1.46	1.07	620	0.75	0.36
4351	0.67	0.49	371	0.37	0.43	5188	2.01	1.47	793	1.05	0.36
4352	0.93	0.68	453	0.52	0.44	5190	1.88	1.37	752	0.97	0.36
4360	0.71	0.52	384	0.41	0.44	5191	0.85	0.62	428	0.48	0.43
4361	0.60	0.44	349	0.34	0.44	5192	2.04	1.49	803	1.14	0.43
4410	2.02	1.48	796	1.12	0.43	5213	3.52	2.57	1269	1.72	0.32
4420	1.32	0.96	576	0.64	0.32	5215	3.14	2.30	1149	1.69	0.42
4431	1.10	0.80	507	0.64	0.49	5221	2.64	1.93	992	1.36	0.36
4432	0.91	0.67	447	0.54	0.49	5222	3.33	2.43	1209	1.63	0.32
4439	—	—	—	0.56	0.43	5223	4.74	3.46	1500	2.42	0.36
4452	1.58	1.15	658	0.88	0.43	5348	2.22	1.62	859	1.14	0.36
4459	1.98	1.45	784	1.10	0.43	5402	2.21	1.62	856	1.25	0.44
4470	1.48	1.08	626	0.83	0.43	5403	3.76	2.75	1344	1.82	0.32
4484	1.96	1.43	777	1.08	0.43	5437	3.44	2.51	1244	1.77	0.36
4493	1.51	1.10	636	0.84	0.43	5443	1.88	1.37	752	1.05	0.43
4511	0.52	0.38	324	0.28	0.41	5445	3.36	2.46	1218	1.64	0.32
4557	1.46	1.07	620	0.83	0.44	5462	3.90	2.85	1389	2.01	0.36
4558	1.00	0.73	475	0.56	0.43	5472	3.81	2.79	1360	1.76	0.31
4568	1.40	1.02	601	0.72	0.36	5473	5.32	3.89	1500	2.40	0.31
4581	0.53	0.39	327	0.25	0.32	5474	3.90	2.85	1389	1.89	0.32
4583	2.66	1.94	998	1.28	0.32	5478	2.64	1.93	992	1.37	0.36
4611	0.33	0.24	264	0.19	0.44	5479	4.11	3.00	1455	2.19	0.41
4635	1.52	1.11	639	0.70	0.31	5480	2.74	2.00	1023	1.34	0.32

\* Refer to the Footnotes Page for additional information on this class code.



**ADVISORY LOSS COSTS AND ADVISORY RATES****INDIANA**

Advisory loss costs exclude all expense provisions except loss adjustment expense.

*Effective January 1, 2018*

CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO
5491	0.93	0.68	453	0.45	0.32	7016M	1.29	0.94	566	0.60	0.31
5506	4.57	3.34	1500	2.08	0.31	7024M	1.43	1.05	610	0.67	0.31
5507	2.16	1.58	840	1.06	0.32	7038M	3.99	2.92	1417	1.79	0.31
5508D	5.93	4.34	1500	3.06	0.36	7046M	4.39	3.21	1500	2.05	0.31
5535	3.13	2.29	1146	1.60	0.36	7047M	2.07	1.51	812	0.94	0.31
5537	3.08	2.25	1130	1.57	0.36	7050M	6.41	4.69	1500	2.79	0.31
5551	6.63	4.85	1500	3.04	0.31	7090M	4.43	3.24	1500	1.99	0.31
5606	1.03	0.75	484	0.49	0.32	7098M	4.88	3.57	1500	2.27	0.31
5610	3.47	2.54	1253	1.94	0.43	7099M	7.06	5.16	1500	3.18	0.31
5645	6.75	4.93	1500	3.26	0.32	7133	1.62	1.18	670	0.78	0.32
5651	—	—	—	3.26	0.32	7151M	1.97	1.44	781	0.95	0.32
5703	6.56	4.80	1500	3.35	0.36	7152M	3.16	2.31	1155	1.47	0.32
5705	11.23	8.21	1500	5.72	0.36	7153M	2.19	1.60	850	1.06	0.32
5951	0.23	0.17	232	0.13	0.44	7219	4.46	3.26	1500	2.20	0.32
6003	3.86	2.82	1376	2.01	0.36	7222	3.61	2.64	1297	1.87	0.36
6005	2.77	2.02	1033	1.41	0.36	7225	3.60	2.63	1294	1.86	0.36
6017	—	—	—	1.72	0.32	7228	—	—	—	2.20	0.32
6018	1.34	0.98	582	0.71	0.36	7229	—	—	—	2.20	0.32
6045	2.27	1.66	875	1.19	0.36	7230	7.12	5.20	1500	3.86	0.42
6204	4.76	3.48	1500	2.33	0.32	7231	6.10	4.46	1500	3.35	0.42
6206	1.45	1.06	617	0.67	0.31	7232	3.03	2.21	1114	1.50	0.32
6213	1.00	0.73	475	0.49	0.32	7309F	11.27	8.24	1500	4.28	0.26
6214	1.18	0.86	532	0.54	0.31	7313F	4.18	3.06	1477	1.59	0.26
6216	3.95	2.89	1404	1.80	0.31	7317F	10.98	8.03	1500	4.19	0.27
6217	2.32	1.70	891	1.13	0.32	7327F	27.35	19.99	1500	10.31	0.26
6229	2.30	1.68	885	1.11	0.32	7333M	1.31	0.96	573	0.63	0.32
6233	1.56	1.14	651	0.77	0.32	7335M	1.46	1.07	620	0.70	0.32
6235	3.90	2.85	1389	1.79	0.31	7337M	2.11	1.54	825	0.98	0.32
6236	4.23	3.09	1492	2.18	0.36	7350F	16.40	11.99	1500	6.44	0.27
6237	0.89	0.65	440	0.46	0.36	7360	2.41	1.76	919	1.23	0.36
6251D	4.14	3.03	1464	2.03	0.32	7370	4.87	3.56	1500	2.70	0.43
6252D	3.01	2.20	1108	1.36	0.31	7380	2.89	2.11	1070	1.56	0.41
6260	—	—	—	2.03	0.32	7382	2.76	2.02	1029	1.53	0.43
6306	2.63	1.92	988	1.29	0.32	7390	2.70	1.97	1011	1.51	0.43
6319	2.19	1.60	850	1.06	0.32	7394M	1.69	1.24	692	0.80	0.31
6325	2.22	1.62	859	1.09	0.32	7395M	1.88	1.37	752	0.89	0.31
6400	3.19	2.33	1165	1.73	0.42	7398M	2.72	1.99	1017	1.25	0.31
6503	0.99	0.72	472	0.56	0.44	7402	0.12	0.09	198	0.07	0.43
6504	2.02	1.48	796	1.15	0.44	7403	2.61	1.91	982	1.33	0.36
6702M*	2.32	1.70	891	1.19	0.36	7405N	0.96	0.70	563	0.49	0.36
6703M*	3.73	2.73	1335	1.85	0.36	7420	3.70	2.70	1326	1.72	0.31
6704M*	2.58	1.89	973	1.32	0.36	7421	0.49	0.36	314	0.24	0.32
6801F	5.26	3.85	1500	2.10	0.30	7422	0.77	0.56	403	0.35	0.31
6811	5.04	3.68	1500	2.57	0.36	7425	1.16	0.85	525	0.54	0.31
6824F	10.83	7.92	1500	4.24	0.27	7431N	0.49	0.36	365	0.23	0.31
6826F	6.78	4.96	1500	2.71	0.30	7445N	0.32	0.23	—	—	—
6834	2.20	1.61	853	1.17	0.41	7453N	0.16	0.12	—	—	—
6836	2.05	1.50	806	1.04	0.36	7502	1.42	1.04	607	0.73	0.36
6843F	7.86	5.75	1500	2.99	0.26	7515	0.72	0.53	387	0.33	0.31
6845F	7.68	5.61	1500	2.91	0.26	7520	2.50	1.83	948	1.39	0.43
6854	2.96	2.16	1092	1.35	0.31	7538	3.13	2.29	1146	1.45	0.31
6872F	11.42	8.35	1500	4.34	0.26	7539	1.00	0.73	475	0.48	0.32
6874F	19.61	14.33	1500	7.45	0.26	7540	1.65	1.21	680	0.75	0.31
6882	2.37	1.73	907	1.10	0.31	7580	2.02	1.48	796	1.02	0.36
6884	3.63	2.65	1303	1.74	0.32	7590	2.28	1.67	878	1.22	0.41

\* Refer to the Footnotes Page for additional information on this class code.

**ADVISORY LOSS COSTS AND ADVISORY RATES****INDIANA**

Advisory loss costs exclude all expense provisions except loss adjustment expense.

*Effective January 1, 2018*

CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO
7600	2.66	1.94	998	1.38	0.36	8288	6.27	4.58	1500	3.16	0.35
7601	—	—	—	1.38	0.36	8291	3.00	2.19	1105	1.62	0.41
7605	2.01	1.47	793	1.03	0.36	8292	2.38	1.74	910	1.33	0.43
7610	0.35	0.26	270	0.19	0.41	8293	6.66	4.87	1500	3.47	0.36
7611	—	—	—	1.38	0.36	8304	4.02	2.94	1426	2.05	0.36
7612	—	—	—	1.38	0.36	8350	2.66	1.94	998	1.30	0.32
7613	—	—	—	1.38	0.36	8380	1.77	1.29	718	0.95	0.41
7698X	4.09	2.99	1448	1.78	0.31	8381	1.56	1.14	651	0.83	0.41
7699X	1.62	1.18	670	0.79	0.35	8385	2.02	1.48	796	1.03	0.36
7705	3.51	2.57	1266	1.88	0.41	8392	1.87	1.37	749	1.03	0.43
7710X	2.60	1.90	979	1.24	0.32	8393X	1.46	1.07	620	0.82	0.43
7711X	2.60	1.90	979	1.24	0.32	8500	4.87	3.56	1500	2.48	0.36
7720	1.89	1.38	755	0.96	0.36	8601	0.27	0.20	245	0.15	0.42
7725X	1.72	1.26	702	0.79	0.32	8602	0.77	0.56	403	0.41	0.41
7855	1.91	1.40	762	0.98	0.36	8603	0.05	0.04	176	0.02	0.43
8001	1.53	1.12	642	0.86	0.44	8606	1.63	1.19	673	0.79	0.32
8002	1.49	1.09	629	0.82	0.43	8709F	5.42	3.96	1500	2.06	0.26
8006	1.54	1.13	645	0.86	0.43	8719	1.95	1.43	774	0.89	0.31
8008	1.03	0.75	484	0.58	0.44	8720	0.92	0.67	450	0.47	0.36
8010	1.24	0.91	551	0.70	0.44	8721	0.26	0.19	242	0.13	0.36
8013	0.30	0.22	255	0.17	0.43	8723	0.14	0.10	204	0.08	0.43
8015	0.52	0.38	324	0.29	0.43	8725	1.68	1.23	689	0.86	0.36
8017	1.10	0.80	507	0.62	0.44	8726F	3.07	2.24	1127	1.23	0.30
8018	2.02	1.48	796	1.14	0.44	8734M	0.31	0.23	258	0.15	0.36
8021	2.18	1.59	847	1.20	0.43	8737M	0.28	0.20	248	0.14	0.36
8031	1.80	1.32	727	1.00	0.43	8738M	0.45	0.33	302	0.23	0.36
8032	1.57	1.15	655	0.89	0.44	8742	0.23	0.17	232	0.12	0.36
8033	2.02	1.48	796	1.11	0.43	8745	2.70	1.97	1011	1.45	0.41
8037	2.32	1.70	891	1.31	0.44	8748	0.44	0.32	299	0.23	0.41
8039	1.39	1.02	598	0.78	0.44	8755	0.18	0.13	217	0.09	0.36
8044	1.99	1.45	787	1.07	0.41	8799	0.81	0.59	415	0.44	0.43
8045	0.51	0.37	321	0.29	0.44	8800	1.25	0.91	554	0.73	0.49
8046	1.80	1.32	727	1.00	0.43	8803	0.06	0.04	179	0.03	0.36
8047	0.74	0.54	393	0.42	0.44	8805M	0.19	0.14	220	0.10	0.43
8058	1.87	1.37	749	1.02	0.43	8810	0.14	0.10	204	0.08	0.43
8072	0.52	0.38	324	0.29	0.44	8814M	0.17	0.12	214	0.10	0.43
8102	1.29	0.94	566	0.73	0.44	8815M	0.27	0.20	245	0.15	0.43
8103	1.58	1.15	658	0.84	0.41	8820	0.11	0.08	195	0.06	0.41
8105	—	—	—	1.14	0.44	8824	2.02	1.48	796	1.14	0.44
8106	2.67	1.95	1001	1.37	0.36	8825	1.22	0.89	544	0.71	0.49
8107	1.92	1.40	765	0.98	0.36	8826	1.41	1.03	604	0.78	0.43
8111	1.98	1.45	784	1.11	0.43	8829	1.54	1.13	645	0.85	0.43
8116	2.08	1.52	815	1.16	0.43	8831	1.09	0.80	503	0.60	0.43
8203	3.88	2.84	1382	2.17	0.43	8832	0.20	0.15	223	0.11	0.43
8204	3.88	2.84	1382	1.96	0.36	8833	0.65	0.48	365	0.36	0.43
8209	2.63	1.92	988	1.46	0.43	8835	1.80	1.32	727	1.00	0.43
8215	1.95	1.43	774	1.01	0.36	8842	2.63	1.92	988	1.45	0.43
8227	2.43	1.78	925	1.11	0.31	8855	0.14	0.10	204	0.07	0.43
8232	2.73	2.00	1020	1.40	0.36	8856	0.26	0.19	242	0.14	0.43
8233	1.85	1.35	743	0.97	0.36	8864	1.19	0.87	535	0.66	0.43
8235	2.66	1.94	998	1.49	0.43	8868	0.29	0.21	251	0.16	0.44
8263	3.89	2.84	1385	2.06	0.41	8869	0.96	0.70	462	0.54	0.44
8264	2.91	2.13	1077	1.50	0.36	8871	0.08	0.06	185	0.04	0.44
8265	4.23	3.09	1492	2.03	0.32	8901	0.14	0.10	204	0.07	0.42
8279	5.83	4.26	1500	2.79	0.32	9012	0.95	0.69	459	0.51	0.41

\* Refer to the Footnotes Page for additional information on this class code.

**ADVISORY LOSS COSTS AND ADVISORY RATES****INDIANA**

Advisory loss costs exclude all expense provisions except loss adjustment expense.

*Effective January 1, 2018*

CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	LOSS COST	MIN PREM	ELR	D RATIO
9014X	2.05	1.50	806	1.14	0.43						
9015	2.72	1.99	1017	1.51	0.43						
9016	2.48	1.81	941	1.37	0.43						
9019	1.18	0.86	532	0.60	0.36						
9033	2.25	1.64	869	1.25	0.43						
9040	2.07	1.51	812	1.17	0.44						
9044	1.19	0.87	535	0.67	0.44						
9052	1.50	1.10	633	0.85	0.44						
9058	1.37	1.00	592	0.80	0.49						
9060	1.10	0.80	507	0.62	0.44						
9061	1.05	0.77	491	0.61	0.49						
9062	1.17	0.86	529	0.69	0.49						
9063	0.81	0.59	415	0.45	0.44						
9077F	4.93	3.60	1500	2.03	0.40						
9082	1.09	0.80	503	0.64	0.49						
9083	0.98	0.72	469	0.57	0.49						
9084	1.15	0.84	522	0.63	0.43						
9088a	a	a	a	a	a						
9089	0.81	0.59	415	0.45	0.44						
9093	1.49	1.09	629	0.83	0.44						
9101	2.90	2.12	1074	1.63	0.44						
9102	2.21	1.62	856	1.23	0.43						
9154	1.37	1.00	592	0.75	0.43						
9156	1.40	1.02	601	0.74	0.41						
9170	5.04	3.68	1500	2.29	0.31						
9178	5.62	4.11	1500	3.24	0.49						
9179	9.59	7.01	1500	5.38	0.44						
9180	5.42	3.96	1500	2.70	0.35						
9182	1.55	1.13	648	0.85	0.43						
9186	7.96	5.82	1500	3.78	0.32						
9220	3.27	2.39	1190	1.74	0.41						
9402	2.59	1.89	976	1.33	0.36						
9403	3.96	2.89	1407	1.93	0.32						
9410	1.61	1.18	667	0.89	0.43						
9501	2.37	1.73	907	1.27	0.41						
9505	2.51	1.83	951	1.35	0.41						
9516	3.31	2.42	1203	1.71	0.36						
9519	3.49	2.55	1259	1.80	0.36						
9521	1.83	1.34	736	0.93	0.36						
9522	1.89	1.38	755	1.04	0.43						
9534	1.87	1.37	749	0.92	0.32						
9554	5.54	4.05	1500	2.70	0.32						
9586	0.40	0.29	286	0.23	0.49						
9600	1.37	1.00	592	0.79	0.44						
9620	0.68	0.50	374	0.36	0.41						

\* Refer to the Footnotes Page for additional information on this class code.

Effective January 1, 2018

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**APPLICABLE TO ADVISORY RATES ONLY**  
**FOOTNOTES**

- a Rate for each individual risk must be obtained from NCCI Customer Service or the Indiana Compensation Rating Bureau (ICRB).
- A Minimum Premium \$100 per ginning location for policy minimum premium computation.
- D Rate for classification already includes the specific disease loading shown in the table below. See **Basic Manual** Rule 3-A-7.

Disease			Disease			Disease		
Code No.	Loading	Symbol	Code No.	Loading	Symbol	Code No.	Loading	Symbol
0059D	0.33	S	1624D	0.02	S	4024D	0.03	S
0065D	0.07	S	1710D	0.06	S	5508D	0.05	S
0066D	0.07	S	1803D	0.54	S	6251D	0.05	S
0067D	0.07	S	3081D	0.05	S	6252D	0.04	S
1164D	0.04	S	3082D	0.07	S			
1165D	0.03	S	3085D	0.04	S			

S=Silica

- F Rate provides for coverage under the United States Longshore and Harbor Workers Compensation Act and its extensions. Rate includes a provision for the USL&HW Assessment.
- M Risks are subject to Admiralty Law or Federal Employers Liability Act (FELA). However, the published rate is for risks that voluntarily purchase standard workers compensation and employers liability coverage. A provision for the USL&HW Assessment is included for those classifications under Program II USL Act.
- N This code is part of a ratable / non-ratable group shown below. The statistical non-ratable code and corresponding rate are applied in addition to the basic classification when determining premium.

Class Code	Non-Ratable Element Code
4766	0766
4771	0771
7405	7445
7431	7453

- P Classification is computed on a per capita basis.
- X Refer to special classification phraseology in these pages which is applicable in this state.

**\* Class Codes with Specific Footnotes**

- 1005 Rate includes a non-ratable disease element of \$0.77. (For coverage written separately for federal benefits only, \$0.75. For coverage written separately for state benefits only, \$0.02.)
- 1016 Rate includes a non-ratable disease element of \$2.30. (For coverage written separately for federal benefits only, \$2.25. For coverage written separately for state benefits only, \$0.05.)
- 6702 Rate and rating values only appropriate for laying or relaying of tracks or maintenance of way - no work on elevated railroads. Otherwise, assign appropriate construction or erection code rate and elr each x 1.215.
- 6703 Rate and rating values only appropriate for laying or relaying of tracks or maintenance of way - no work on elevated railroads. Otherwise, assign appropriate construction or erection class rate x 1.952 and elr x 1.891.
- 6704 Rate and rating values only appropriate for laying or relaying of tracks or maintenance of way - no work on elevated railroads. Otherwise, assign appropriate construction or erection class rate and elr each x 1.35.

Effective January 1, 2018

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**APPLICABLE TO ADVISORY LOSS COSTS ONLY**  
**FOOTNOTES**

- a Advisory loss cost for each individual risk must be obtained from NCCI Customer Service or the Indiana Compensation Rating Bureau (ICRB).
- D Advisory loss cost for classification already includes the specific disease loading shown in the table below. See **Basic Manual** Rule 3-A-7.

Code No.	Disease Loading	Symbol	Code No.	Disease Loading	Symbol	Code No.	Disease Loading	Symbol
0059D	0.24	S	1624D	0.01	S	4024D	0.02	S
0065D	0.05	S	1710D	0.04	S	5508D	0.04	S
0066D	0.05	S	1803D	0.39	S	6251D	0.04	S
0067D	0.05	S	3081D	0.04	S	6252D	0.03	S
1164D	0.03	S	3082D	0.05	S			
1165D	0.02	S	3085D	0.03	S			

S=Silica

- F Advisory loss cost provides for coverage under the United States Longshore and Harbor Workers Compensation Act and its extensions. Loss cost contains a provision for the USL&HW Assessment.
- M Risks are subject to Admiralty Law or Federal Employers Liability Act (FELA). However, the published loss cost is for risks that voluntarily purchase standard workers compensation and employers liability coverage. A provision for the USL&HW Assessment is included for those classifications under Program II USL Act.
- N This code is part of a ratable / non-ratable group shown below. The statistical non-ratable code and corresponding advisory loss cost are applied in addition to the basic classification when determining premium.

Class Code	Non-Ratable Element Code
4766	0766
4771	0771
7405	7445
7431	7453

- P Classification is computed on a per capita basis.
- X Refer to special classification phraseology in these pages which is applicable in this state.

**\* Class Codes with Specific Footnotes**

- 1005 Advisory loss cost includes a non-ratable disease element of \$0.56. (For coverage written separately for federal benefits only, \$0.55. For coverage written separately for state benefits only, \$0.01.)
- 1016 Advisory loss cost includes a non-ratable disease element of \$1.68. (For coverage written separately for federal benefits only, \$1.64. For coverage written separately for state benefits only, \$0.04.)
- 6702 Loss cost and rating values only appropriate for laying or relaying of tracks or maintenance of way - no work on elevated railroads. Otherwise, assign appropriate construction or erection code loss cost and elr each x 1.215.
- 6703 Loss cost and rating values only appropriate for laying or relaying of tracks or maintenance of way - no work on elevated railroads. Otherwise, assign appropriate construction or erection class loss cost x 1.952 and elr x 1.891.
- 6704 Loss cost and rating values only appropriate for laying or relaying of tracks or maintenance of way - no work on elevated railroads. Otherwise, assign appropriate construction or erection class loss cost and elr each x 1.35.

Effective January 1, 2018

## MISCELLANEOUS VALUES - ADVISORY RATES

**Basis of premium** applicable in accordance with **Basic Manual** footnote instructions for Code 7370 --  
"Taxicab Co.":

Employee operated vehicle.....	\$67,200
Leased or rented vehicle.....	\$44,800

**Catastrophe (other than Certified Acts of Terrorism) - (Advisory Rate) .....** 0.01

**Expense Constant** applicable in accordance with **Basic Manual** Rule 3-A-11..... \$160

**Maximum Weekly Payroll** applicable in accordance with **Basic Manual** Rule 2-E – “Executive Officers,”  
“Partners, Sole Proprietors, and Members or Managers of Limited Liability Companies” as amended in  
Indiana Special Rules, and the **Basic Manual** footnote instructions for Code 9178 – “Athletic Sports or  
Park: Non-Contact Sports,” and Code 9179 – “Athletic Sports or Park: Contact Sports”..... \$3,400

**Minimum Weekly Payroll** applicable in accordance with **Basic Manual** Rule 2-E – “Executive Officers”  
and “Partners, Sole Proprietors, and Members or Managers of Limited Liability Companies”..... \$750

**Premium Discount Percentages**-(See **Basic Manual** Rule 3-A-19.) Premium discounts are not  
mandatory in Indiana. The following premium discounts are applicable to Standard Premiums:

		Type A	Type B
First	\$10,000	-	-
Next	190,000	9.1%	5.1%
Next	1,550,000	11.3%	6.5%
Over	1,750,000	12.3%	7.5%

**Premium Reduction Percentages** - The following percentages are applicable by deductible amount and  
hazard group for total losses on a per claim basis:

Deductible Amount	With Coinsurance Premium Reduction Percentages HAZARD GROUP						
	A	B	C	D	E	F	G
\$0	7.5%	6.6%	6.1%	5.3%	4.7%	3.9%	3.5%
\$500	11.9%	9.8%	9.0%	7.6%	6.3%	5.0%	4.6%
\$1,000	14.7%	12.1%	11.0%	9.2%	7.6%	5.9%	5.5%
\$1,500	16.8%	13.8%	12.6%	10.4%	8.6%	6.7%	6.3%
\$2,000	18.4%	15.1%	13.8%	11.4%	9.5%	7.3%	7.0%
\$2,500	19.8%	16.3%	14.8%	12.3%	10.2%	7.9%	7.5%
\$3,000	20.9%	17.3%	15.7%	13.1%	10.9%	8.5%	8.0%
\$3,500	21.9%	18.2%	16.6%	13.8%	11.5%	9.0%	8.4%
\$4,000	22.8%	19.0%	17.3%	14.5%	12.1%	9.5%	8.8%
\$4,500	23.7%	19.7%	18.0%	15.1%	12.6%	9.9%	9.2%
\$5,000	24.4%	20.4%	18.6%	15.6%	13.1%	10.3%	9.6%

Effective January 1, 2018

## MISCELLANEOUS VALUES - ADVISORY RATES(cont.)

Deductible Amount	Without Coinsurance Premium Reduction Percentages HAZARD GROUP						
	A	B	C	D	E	F	G
\$500	5.5%	4.1%	3.7%	2.8%	2.1%	1.4%	1.4%
\$1,000	9.0%	6.9%	6.2%	4.8%	3.7%	2.5%	2.5%
\$1,500	11.6%	9.0%	8.1%	6.3%	5.0%	3.5%	3.5%
\$2,000	13.6%	10.7%	9.6%	7.6%	6.0%	4.3%	4.3%
\$2,500	15.3%	12.1%	10.9%	8.7%	7.0%	5.0%	5.0%
\$3,000	16.7%	13.4%	12.0%	9.7%	7.8%	5.7%	5.6%
\$3,500	18.0%	14.5%	13.1%	10.6%	8.6%	6.4%	6.1%
\$4,000	19.1%	15.5%	14.0%	11.4%	9.3%	6.9%	6.6%
\$4,500	20.1%	16.4%	14.8%	12.2%	10.0%	7.5%	7.1%
\$5,000	21.1%	17.3%	15.6%	12.9%	10.6%	8.0%	7.6%

**Terrorism** - (Advisory Rate)..... 0.01

**United States Longshore and Harbor Workers' Compensation Coverage Percentage**

applicable only in connection with **Basic Manual** Rule 3-A-4..... 60%

(Multiply a Non-F classification rate by a factor of 1.60 to adjust for differences in benefits and loss-based expenses. This factor is the product of the adjustment for differences in benefits (1.51) and the adjustment for differences in loss-based expenses (1.061).).

**Experience Rating Eligibility**

A risk qualifies for experience rating on an intrastate basis when it meets the premium eligibility requirements for the state in which it operates. The eligibility amount varies by rating effective date. The **Experience Rating Plan Manual** should be referenced for the latest approved eligibility amounts by state and by effective date.

Effective January 1, 2018

**MISCELLANEOUS VALUES - ADVISORY LOSS COSTS**

**Advisory Loss Elimination Ratios** - The following reduction percentages are applicable for employers electing total deductibles on a per claim basis. They do not include a safety factor.

Deductible Amount	With Coinsurance Loss Elimination Ratios HAZARD GROUP						
	A	B	C	D	E	F	G
\$0	9.9%	8.6%	8.0%	7.0%	6.1%	5.1%	4.6%
\$500	15.6%	12.9%	11.8%	9.9%	8.3%	6.6%	6.1%
\$1,000	19.3%	15.8%	14.5%	12.0%	10.0%	7.7%	7.3%
\$1,500	22.0%	18.0%	16.5%	13.7%	11.3%	8.7%	8.3%
\$2,000	24.1%	19.8%	18.1%	15.0%	12.4%	9.6%	9.1%
\$2,500	25.9%	21.3%	19.4%	16.2%	13.4%	10.4%	9.8%
\$3,000	27.4%	22.7%	20.6%	17.2%	14.3%	11.1%	10.5%
\$3,500	28.7%	23.8%	21.7%	18.1%	15.1%	11.8%	11.0%
\$4,000	29.9%	24.9%	22.7%	19.0%	15.9%	12.4%	11.6%
\$4,500	31.0%	25.8%	23.6%	19.8%	16.6%	13.0%	12.1%
\$5,000	32.0%	26.7%	24.4%	20.5%	17.2%	13.5%	12.6%

Deductible Amount	Without Coinsurance Loss Elimination Ratios HAZARD GROUP						
	A	B	C	D	E	F	G
\$500	7.2%	5.4%	4.8%	3.6%	2.8%	1.8%	1.8%
\$1,000	11.8%	9.0%	8.1%	6.3%	4.8%	3.3%	3.3%
\$1,500	15.2%	11.8%	10.6%	8.3%	6.5%	4.5%	4.5%
\$2,000	17.8%	14.0%	12.6%	10.0%	7.9%	5.6%	5.6%
\$2,500	20.0%	15.9%	14.3%	11.5%	9.2%	6.6%	6.5%
\$3,000	21.9%	17.6%	15.8%	12.7%	10.3%	7.5%	7.3%
\$3,500	23.6%	19.0%	17.1%	13.9%	11.3%	8.3%	8.0%
\$4,000	25.0%	20.3%	18.3%	15.0%	12.2%	9.1%	8.7%
\$4,500	26.4%	21.5%	19.4%	16.0%	13.1%	9.8%	9.3%
\$5,000	27.6%	22.7%	20.5%	16.9%	13.9%	10.5%	9.9%

**Basis of premium** applicable in accordance with **Basic Manual** footnote instructions for Code 7370 --"Taxicab Co.":

Employee operated vehicle.....	\$67,200
Leased or rented vehicle.....	\$44,800

**Catastrophe (other than Certified Acts of Terrorism) - (Advisory Loss Cost).....** 0.01

**Maximum Weekly Payroll** applicable in accordance with **Basic Manual** Rule 2-E – "Executive Officers," "Partners, Sole Proprietors, and Members or Managers of Limited Liability Companies" as amended in Indiana Special Rules, and the **Basic Manual** footnote instructions for Code 9178 – "Athletic Sports or Park: Non-Contact Sports," and Code 9179 – "Athletic Sports or Park: Contact" \$3,400

**Minimum Weekly Payroll** applicable in accordance with **Basic Manual** Rule 2-E – "Executive Officers" and "Partners, Sole Proprietors, and Members or Managers of Limited Liability Companies"..... \$750

**Terrorism - (Advisory Loss Cost) .....** 0.005



Effective January 1, 2018

MISCELLANEOUS VALUES - ADVISORY LOSS COSTS (cont.)

United States Longshore and Harbor Workers' Compensation Coverage Percentage applicable  
only in connection with *Basic Manual* Rule 3-A-4..... 60%

(Multiply a Non-F classification loss cost by a factor of 1.60 to adjust for differences in benefits and loss-based expenses. This factor is the product of the adjustment for differences in benefits (1.51) and the adjustment for differences in loss-based expenses (1.061).)

Experience Rating Eligibility

A risk qualifies for experience rating on an intrastate basis when it meets the premium eligibility requirements for the state in which it operates. The eligibility amount varies by rating effective date. The *Experience Rating Plan Manual* should be referenced for the latest approved eligibility amounts by state and by effective date.



## Indiana

### **Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018**

#### **Proposed Assigned Risk Rates and Rating Values**

The following pages include proposed assigned risk rates and rating values:

- Assigned risk rates, minimum premium, expected loss rates, and d-ratios by class code, along with associated footnotes
- Miscellaneous values, such as:
  - Maximum and minimum weekly payroll applicable for select class codes
  - Premium determination for Partners and Sole Proprietors
  - Terrorism rate
  - United States Longshore and Harbor Workers' Compensation Coverage Percentage

# WORKERS COMPENSATION AND EMPLOYERS LIABILITY

# INDIANA

Effective January 1, 2018

## APPLICABLE TO ASSIGNED RISK POLICIES ONLY

CLASS CODE	RATE	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	MIN PREM	ELR	D RATIO
0005	2.40	916	1.33	0.43	2014	3.01	1108	1.55	0.36	2709	8.23	1500	4.24	0.36
0008	2.23	862	1.19	0.41	2016	2.69	1007	1.51	0.44	2710	6.54	1500	3.14	0.32
0016	4.58	1500	2.32	0.36	2021	1.60	664	0.85	0.41	2714	3.27	1190	1.85	0.44
0034	2.55	963	1.41	0.43	2039	1.20	538	0.69	0.44	2731	3.24	1181	1.65	0.36
0035	1.90	759	1.06	0.44	2041	1.95	774	1.10	0.44	2735	3.57	1285	2.00	0.44
0036	2.60	979	1.46	0.43	2065	1.06	494	0.59	0.43	2759	5.28	1500	3.00	0.44
0037	2.98	1099	1.60	0.41	2070	3.06	1124	1.70	0.43	2790	1.17	529	0.66	0.44
0042	3.75	1341	2.01	0.41	2081	1.80	727	0.99	0.43	2797	1.81	730	1.01	0.43
0050	4.73	1500	2.62	0.43	2089	2.05	806	1.15	0.43	2799	3.78	1351	2.02	0.41
0059D	0.33	—	0.08	0.36	2095	2.19	850	1.22	0.43	2802	3.79	1354	2.04	0.41
0065D	0.07	—	0.02	0.36	2105	1.95	774	1.10	0.44	2835	1.67	686	0.99	0.49
0066D	0.07	—	0.02	0.36	2110	1.92	765	1.08	0.44	2836	1.45	617	0.85	0.49
0067D	0.07	—	0.02	0.36	2111	1.38	595	0.78	0.44	2841	2.45	932	1.38	0.44
0079	4.20	1483	2.21	0.36	2112	2.92	1080	1.63	0.44	2881	1.95	774	1.14	0.49
0083	3.39	1228	1.88	0.43	2114	1.92	765	1.09	0.44	2883	1.76	714	0.98	0.43
0106	6.15	1500	2.97	0.32	2121	1.40	601	0.77	0.43	2913	—	—	0.98	0.43
0113	2.59	976	1.44	0.43	2130	1.60	664	0.89	0.43	2915	1.95	774	1.05	0.41
0170	2.84	1055	1.58	0.43	2131	1.19	535	0.67	0.43	2916	2.40	916	1.16	0.32
0251	2.05	806	1.15	0.43	2143	1.19	535	0.67	0.44	2923	1.81	730	1.02	0.44
0400	—	—	0.84	0.41	2157	2.91	1077	1.63	0.43	2942	—	—	0.54	0.49
0401	7.92	A	3.82	0.32	2172	0.87	434	0.47	0.42	2960	3.16	1155	1.76	0.43
0766N	0.31	—	—	—	2174	1.46	620	0.83	0.44	3004	0.85	428	0.44	0.36
0771N	0.28	—	—	—	2211	5.11	1500	2.64	0.36	3018	1.66	683	0.85	0.36
0908P	142.00	302	78.96	0.43	2220	1.29	566	0.72	0.43	3022	1.99	787	1.13	0.44
0913P	297.00	457	166.61	0.43	2286	0.94	456	0.54	0.44	3027	1.89	755	0.96	0.36
1005*	2.60	979	0.86	0.31	2288	2.95	1089	1.67	0.44	3028	1.81	730	1.01	0.43
1016X*	8.51	1500	2.87	0.31	2300	—	—	0.97	0.43	3030	4.08	1445	2.08	0.36
1164D	2.21	856	1.00	0.31	2302	1.11	510	0.62	0.43	3040	3.85	1373	1.97	0.36
1165D	1.69	692	0.81	0.32	2305	1.23	547	0.67	0.42	3041	3.29	1196	1.81	0.43
1320	2.98	1099	1.42	0.32	2361	1.28	563	0.71	0.43	3042	2.16	840	1.16	0.41
1322	6.08	1500	3.02	0.32	2362	1.00	475	0.56	0.43	3064	3.13	1146	1.76	0.43
1430	2.68	1004	1.37	0.36	2380	1.93	768	1.08	0.43	3069	—	—	1.16	0.43
1438	2.69	1007	1.31	0.32	2386	—	—	0.97	0.43	3076	2.08	815	1.16	0.43
1452	1.41	604	0.73	0.36	2388	1.23	547	0.70	0.44	3081D	2.91	1077	1.46	0.36
1463	8.37	1500	4.02	0.32	2402	1.69	692	0.86	0.36	3082D	2.93	1083	1.45	0.36
1472	1.98	784	0.95	0.32	2413	1.89	755	1.05	0.43	3085D	2.52	954	1.26	0.36
1604X	2.47	938	1.29	0.36	2416	1.20	538	0.67	0.43	3110	2.16	840	1.21	0.43
1624D	1.41	604	0.67	0.32	2417	0.82	418	0.46	0.43	3111	1.87	749	1.04	0.43
1642	1.20	538	0.62	0.36	2501	1.75	711	0.97	0.43	3113	1.16	525	0.64	0.43
1654	4.33	1500	2.23	0.36	2503	0.97	466	0.55	0.44	3114	1.80	727	1.01	0.43
1655	—	—	0.62	0.36	2534X	1.58	658	0.89	0.44	3118	1.11	510	0.64	0.44
1699	1.80	727	0.92	0.36	2570	2.46	935	1.40	0.44	3119	0.58	343	0.34	0.49
1701	2.27	875	1.16	0.36	2585	2.04	803	1.16	0.44	3122	1.19	535	0.67	0.44
1710D	2.86	1061	1.44	0.36	2586	1.28	563	0.71	0.43	3126	1.11	510	0.61	0.43
1741	—	—	1.16	0.36	2587	1.60	664	0.92	0.44	3131	1.06	494	0.59	0.43
1747	1.20	538	0.62	0.36	2589	1.32	576	0.74	0.43	3132	2.02	796	1.12	0.43
1748	5.02	1500	2.53	0.35	2600	2.33	894	1.34	0.44	3145	1.81	730	1.00	0.43
1803D	5.06	1500	2.18	0.32	2623	4.34	1500	2.33	0.41	3146	1.45	617	0.80	0.43
1852	—	—	0.64	0.31	2651	0.75	396	0.42	0.44	3169	1.48	626	0.82	0.43
1853	—	—	1.16	0.36	2660	1.34	582	0.75	0.44	3175	—	—	0.82	0.43
1860X	1.25	554	0.70	0.43	2670	1.20	538	0.71	0.49	3179	1.16	525	0.65	0.44
1924	1.48	626	0.84	0.44	2683	1.35	585	0.76	0.44	3180	1.69	692	0.96	0.44
1925	2.36	903	1.25	0.41	2688	1.78	721	1.01	0.44	3188	1.06	494	0.60	0.44
2002	1.70	696	0.96	0.44	2701	12.29	1500	6.23	0.36	3220	1.11	510	0.62	0.43
2003	2.91	1077	1.62	0.43	2702	15.24	1500	6.99	0.31	3223	—	—	0.96	0.44

\* Refer to the Footnotes Page for additional information on this class code.

# WORKERS COMPENSATION AND EMPLOYERS LIABILITY

INDIANA

Effective January 1, 2018

## APPLICABLE TO ASSIGNED RISK POLICIES ONLY

CLASS CODE	RATE	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	MIN PREM	ELR	D RATIO
3224	1.96	777	1.13	0.44	4024D	2.87	1064	1.45	0.36	4653	1.52	639	0.85	0.44
3227	2.10	822	1.19	0.44	4034	3.94	1401	2.01	0.36	4665	3.18	1162	1.63	0.36
3240	2.04	803	1.16	0.44	4036	1.93	768	0.98	0.36	4670	4.82	1500	2.45	0.36
3241	1.61	667	0.90	0.43	4038	1.60	664	0.95	0.49	4683	3.09	1133	1.72	0.43
3255	1.51	636	0.88	0.49	4053X	1.54	645	0.86	0.43	4686	1.29	566	0.66	0.36
3257	1.66	683	0.92	0.43	4061X	2.51	951	1.44	0.44	4692	0.55	333	0.31	0.44
3270	1.37	592	0.76	0.43	4062	1.78	721	1.00	0.43	4693	0.59	346	0.33	0.43
3300	4.65	1500	2.54	0.43	4101	1.60	664	0.85	0.41	4703	1.05	491	0.59	0.43
3303	2.63	988	1.48	0.44	4109	0.30	255	0.17	0.44	4716X	2.11	825	1.21	0.44
3307	2.42	922	1.34	0.43	4110	0.47	308	0.26	0.43	4717	1.28	563	0.76	0.49
3315	2.34	897	1.33	0.44	4111	1.23	547	0.70	0.44	4720	1.13	516	0.63	0.43
3334	1.35	585	0.77	0.43	4113X	1.58	658	0.87	0.43	4740	0.47	308	0.24	0.36
3336	1.55	648	0.79	0.36	4114	1.69	692	0.94	0.43	4741	1.41	604	0.80	0.43
3365	3.75	1341	1.92	0.36	4130	2.02	796	1.12	0.43	4751	1.45	617	0.73	0.36
3372	2.16	840	1.15	0.41	4131	3.67	1316	2.06	0.44	4766NX	2.24	963	1.03	0.31
3373	3.57	1285	2.04	0.43	4133	1.26	557	0.71	0.44	4771NX	1.58	746	0.72	0.31
3383	0.82	418	0.46	0.44	4149	0.40	286	0.23	0.49	4777	2.05	806	0.95	0.31
3385	0.47	308	0.27	0.44	4206	1.48	626	0.83	0.43	4825	0.52	324	0.26	0.36
3400	2.74	1023	1.45	0.41	4207	1.31	573	0.66	0.36	4828	1.57	655	0.83	0.41
3507	1.93	768	1.08	0.43	4239	1.34	582	0.68	0.36	4829	0.93	453	0.45	0.32
3515	1.60	664	0.88	0.43	4240	2.22	859	1.25	0.44	4902	2.98	1099	1.70	0.44
3548	0.97	466	0.54	0.43	4243	1.61	667	0.90	0.43	4923	0.62	355	0.35	0.43
3559	1.73	705	0.96	0.43	4244	1.66	683	0.93	0.43	5020	3.20	1168	1.65	0.36
3574	0.91	447	0.51	0.44	4250	1.08	500	0.60	0.43	5022	3.59	1291	1.76	0.32
3581	0.82	418	0.46	0.44	4251	1.81	730	1.01	0.43	5037	6.77	1500	3.10	0.31
3612	1.55	648	0.83	0.41	4263	2.05	806	1.14	0.43	5040	4.85	1500	2.22	0.31
3620	2.60	979	1.32	0.36	4273	1.32	576	0.74	0.43	5057	3.33	1209	1.55	0.31
3629	1.28	563	0.73	0.44	4279	1.25	554	0.70	0.43	5059	9.08	1500	4.15	0.31
3632	1.67	686	0.90	0.41	4282X	1.25	554	0.70	0.43	5069	—	—	4.15	0.31
3634	1.19	535	0.67	0.44	4283	0.76	399	0.42	0.43	5102	2.83	1051	1.37	0.32
3635	1.70	696	0.94	0.43	4299	1.34	582	0.76	0.44	5146	2.44	929	1.25	0.36
3638	0.93	453	0.52	0.44	4304	4.02	1426	2.14	0.41	5160	1.37	592	0.67	0.32
3642	1.43	610	0.79	0.43	4307	1.28	563	0.75	0.49	5183	1.46	620	0.75	0.36
3643	1.45	617	0.80	0.43	4351	0.67	371	0.37	0.43	5188	2.01	793	1.05	0.36
3647	1.35	585	0.73	0.41	4352	0.93	453	0.52	0.44	5190	1.88	752	0.97	0.36
3648	1.06	494	0.60	0.44	4360	0.71	384	0.41	0.44	5191	0.85	428	0.48	0.43
3681	0.76	399	0.43	0.44	4361	0.60	349	0.34	0.44	5192	2.04	803	1.14	0.43
3685	0.55	333	0.31	0.44	4410	2.02	796	1.12	0.43	5213	3.52	1269	1.72	0.32
3719	0.50	318	0.23	0.31	4420	1.32	576	0.64	0.32	5215	3.14	1149	1.69	0.42
3724	2.50	948	1.21	0.32	4431	1.10	507	0.64	0.49	5221	2.64	992	1.36	0.36
3726	2.19	850	1.02	0.31	4432	0.91	447	0.54	0.49	5222	3.33	1209	1.63	0.32
3803	1.78	721	1.00	0.43	4439	—	—	0.56	0.43	5223	4.74	1500	2.42	0.36
3807	1.40	601	0.79	0.44	4452	1.58	658	0.88	0.43	5348	2.22	859	1.14	0.36
3808	2.68	1004	1.44	0.41	4459	1.98	784	1.10	0.43	5402	2.21	856	1.25	0.44
3821X	4.94	1500	2.63	0.41	4470	1.48	626	0.83	0.43	5403	3.76	1344	1.82	0.32
3822X	2.84	1055	1.50	0.41	4484	1.96	777	1.08	0.43	5437	3.44	1244	1.77	0.36
3824X	2.02	796	1.09	0.41	4493	1.51	636	0.84	0.43	5443	1.88	752	1.05	0.43
3826	0.38	280	0.21	0.43	4511	0.52	324	0.28	0.41	5445	3.36	1218	1.64	0.32
3827	1.81	730	0.97	0.41	4557	1.46	620	0.83	0.44	5462	3.90	1389	2.01	0.36
3830	1.17	529	0.62	0.41	4558	1.00	475	0.56	0.43	5472	3.81	1360	1.76	0.31
3851	2.01	793	1.14	0.44	4568	1.40	601	0.72	0.36	5473	5.32	1500	2.40	0.31
3865	1.13	516	0.66	0.49	4581	0.53	327	0.25	0.32	5474	3.90	1389	1.89	0.32
3881	3.65	1310	2.03	0.43	4583	2.66	998	1.28	0.32	5478	2.64	992	1.37	0.36
4000	4.22	1489	2.05	0.32	4611	0.33	264	0.19	0.44	5479	4.11	1455	2.19	0.41
4021	2.72	1017	1.38	0.36	4635	1.52	639	0.70	0.31	5480	2.74	1023	1.34	0.32

\* Refer to the Footnotes Page for additional information on this class code.

# WORKERS COMPENSATION AND EMPLOYERS LIABILITY

# INDIANA

Effective January 1, 2018

## APPLICABLE TO ASSIGNED RISK POLICIES ONLY

CLASS CODE	RATE	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	MIN PREM	ELR	D RATIO
5491	0.93	453	0.45	0.32	7016M	1.29	566	0.60	0.31	7600	2.66	998	1.38	0.36
5506	4.57	1500	2.08	0.31	7024M	1.43	610	0.67	0.31	7601	—	—	1.38	0.36
5507	2.16	840	1.06	0.32	7038M	3.99	1417	1.79	0.31	7605	2.01	793	1.03	0.36
5508D	5.93	1500	3.06	0.36	7046M	4.39	1500	2.05	0.31	7610	0.35	270	0.19	0.41
5535	3.13	1146	1.60	0.36	7047M	2.07	812	0.94	0.31	7611	—	—	1.38	0.36
5537	3.08	1130	1.57	0.36	7050M	6.41	1500	2.79	0.31	7612	—	—	1.38	0.36
5551	6.63	1500	3.04	0.31	7090M	4.43	1500	1.99	0.31	7613	—	—	1.38	0.36
5606	1.03	484	0.49	0.32	7098M	4.88	1500	2.27	0.31	7698X	4.09	1448	1.78	0.31
5610	3.47	1253	1.94	0.43	7099M	7.06	1500	3.18	0.31	7699X	1.62	670	0.79	0.35
5645	6.75	1500	3.26	0.32	7133	1.62	670	0.78	0.32	7705	3.51	1266	1.88	0.41
5651	—	—	3.26	0.32	7151M	1.97	781	0.95	0.32	7710X	2.60	979	1.24	0.32
5703	6.56	1500	3.35	0.36	7152M	3.16	1155	1.47	0.32	7711X	2.60	979	1.24	0.32
5705	11.23	1500	5.72	0.36	7153M	2.19	850	1.06	0.32	7720	1.89	755	0.96	0.36
5951	0.23	232	0.13	0.44	7219	4.46	1500	2.20	0.32	7725X	1.72	702	0.79	0.32
6003	3.86	1376	2.01	0.36	7222	3.61	1297	1.87	0.36	7855	1.91	762	0.98	0.36
6005	2.77	1033	1.41	0.36	7225	3.60	1294	1.86	0.36	8001	1.53	642	0.86	0.44
6017	—	—	1.72	0.32	7228	—	—	2.20	0.32	8002	1.49	629	0.82	0.43
6018	1.34	582	0.71	0.36	7229	—	—	2.20	0.32	8006	1.54	645	0.86	0.43
6045	2.27	875	1.19	0.36	7230	7.12	1500	3.86	0.42	8008	1.03	484	0.58	0.44
6204	4.76	1500	2.33	0.32	7231	6.10	1500	3.35	0.42	8010	1.24	551	0.70	0.44
6206	1.45	617	0.67	0.31	7232	3.03	1114	1.50	0.32	8013	0.30	255	0.17	0.43
6213	1.00	475	0.49	0.32	7309F	11.27	1500	4.28	0.26	8015	0.52	324	0.29	0.43
6214	1.18	532	0.54	0.31	7313F	4.18	1477	1.59	0.26	8017	1.10	507	0.62	0.44
6216	3.95	1404	1.80	0.31	7317F	10.98	1500	4.19	0.27	8018	2.02	796	1.14	0.44
6217	2.32	891	1.13	0.32	7327F	27.35	1500	10.31	0.26	8021	2.18	847	1.20	0.43
6229	2.30	885	1.11	0.32	7333M	1.31	573	0.63	0.32	8031	1.80	727	1.00	0.43
6233	1.56	651	0.77	0.32	7335M	1.46	620	0.70	0.32	8032	1.57	655	0.89	0.44
6235	3.90	1389	1.79	0.31	7337M	2.11	825	0.98	0.32	8033	2.02	796	1.11	0.43
6236	4.23	1492	2.18	0.36	7350F	16.40	1500	6.44	0.27	8037	2.32	891	1.31	0.44
6237	0.89	440	0.46	0.36	7360	2.41	919	1.23	0.36	8039	1.39	598	0.78	0.44
6251D	4.14	1464	2.03	0.32	7370	4.87	1500	2.70	0.43	8044	1.99	787	1.07	0.41
6252D	3.01	1108	1.36	0.31	7380	2.89	1070	1.56	0.41	8045	0.51	321	0.29	0.44
6260	—	—	2.03	0.32	7382	2.76	1029	1.53	0.43	8046	1.80	727	1.00	0.43
6306	2.63	988	1.29	0.32	7390	2.70	1011	1.51	0.43	8047	0.74	393	0.42	0.44
6319	2.19	850	1.06	0.32	7394M	1.69	692	0.80	0.31	8058	1.87	749	1.02	0.43
6325	2.22	859	1.09	0.32	7395M	1.88	752	0.89	0.31	8072	0.52	324	0.29	0.44
6400	3.19	1165	1.73	0.42	7398M	2.72	1017	1.25	0.31	8102	1.29	566	0.73	0.44
6503	0.99	472	0.56	0.44	7402	0.12	198	0.07	0.43	8103	1.58	658	0.84	0.41
6504	2.02	796	1.15	0.44	7403	2.61	982	1.33	0.36	8105	—	—	1.14	0.44
6702M*	2.32	891	1.19	0.36	7405N	0.96	563	0.49	0.36	8106	2.67	1001	1.37	0.36
6703M*	3.73	1335	1.85	0.36	7420	3.70	1326	1.72	0.31	8107	1.92	765	0.98	0.36
6704M*	2.58	973	1.32	0.36	7421	0.49	314	0.24	0.32	8111	1.98	784	1.11	0.43
6801F	5.26	1500	2.10	0.30	7422	0.77	403	0.35	0.31	8116	2.08	815	1.16	0.43
6811	5.04	1500	2.57	0.36	7425	1.16	525	0.54	0.31	8203	3.88	1382	2.17	0.43
6824F	10.83	1500	4.24	0.27	7431N	0.49	365	0.23	0.31	8204	3.88	1382	1.96	0.36
6826F	6.78	1500	2.71	0.30	7445N	0.32	—	—	—	8209	2.63	988	1.46	0.43
6834	2.20	853	1.17	0.41	7453N	0.16	—	—	—	8215	1.95	774	1.01	0.36
6836	2.05	806	1.04	0.36	7502	1.42	607	0.73	0.36	8227	2.43	925	1.11	0.31
6843F	7.86	1500	2.99	0.26	7515	0.72	387	0.33	0.31	8232	2.73	1020	1.40	0.36
6845F	7.68	1500	2.91	0.26	7520	2.50	948	1.39	0.43	8233	1.85	743	0.97	0.36
6854	2.96	1092	1.35	0.31	7538	3.13	1146	1.45	0.31	8235	2.66	998	1.49	0.43
6872F	11.42	1500	4.34	0.26	7539	1.00	475	0.48	0.32	8263	3.89	1385	2.06	0.41
6874F	19.61	1500	7.45	0.26	7540	1.65	680	0.75	0.31	8264	2.91	1077	1.50	0.36
6882	2.37	907	1.10	0.31	7580	2.02	796	1.02	0.36	8265	4.23	1492	2.03	0.32
6884	3.63	1303	1.74	0.32	7590	2.28	878	1.22	0.41	8279	5.83	1500	2.79	0.32

\* Refer to the Footnotes Page for additional information on this class code.

# WORKERS COMPENSATION AND EMPLOYERS LIABILITY

INDIANA

Effective January 1, 2018

## APPLICABLE TO ASSIGNED RISK POLICIES ONLY

CLASS CODE	RATE	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	MIN PREM	ELR	D RATIO	CLASS CODE	RATE	MIN PREM	ELR	D RATIO
8288	6.27	1500	3.16	0.35	9014X	2.05	806	1.14	0.43					
8291	3.00	1105	1.62	0.41	9015	2.72	1017	1.51	0.43					
8292	2.38	910	1.33	0.43	9016	2.48	941	1.37	0.43					
8293	6.66	1500	3.47	0.36	9019	1.18	532	0.60	0.36					
8304	4.02	1426	2.05	0.36	9033	2.25	869	1.25	0.43					
8350	2.66	998	1.30	0.32	9040	2.07	812	1.17	0.44					
8380	1.77	718	0.95	0.41	9044	1.19	535	0.67	0.44					
8381	1.56	651	0.83	0.41	9052	1.50	633	0.85	0.44					
8385	2.02	796	1.03	0.36	9058	1.37	592	0.80	0.49					
8392	1.87	749	1.03	0.43	9060	1.10	507	0.62	0.44					
8393X	1.46	620	0.82	0.43	9061	1.05	491	0.61	0.49					
8500	4.87	1500	2.48	0.36	9062	1.17	529	0.69	0.49					
8601	0.27	245	0.15	0.42	9063	0.81	415	0.45	0.44					
8602	0.77	403	0.41	0.41	9077F	4.93	1500	2.03	0.40					
8603	0.05	176	0.02	0.43	9082	1.09	503	0.64	0.49					
8606	1.63	673	0.79	0.32	9083	0.98	469	0.57	0.49					
8709F	5.42	1500	2.06	0.26	9084	1.15	522	0.63	0.43					
8719	1.95	774	0.89	0.31	9088a	a	a	a	a					
8720	0.92	450	0.47	0.36	9089	0.81	415	0.45	0.44					
8721	0.26	242	0.13	0.36	9093	1.49	629	0.83	0.44					
8723	0.14	204	0.08	0.43	9101	2.90	1074	1.63	0.44					
8725	1.68	689	0.86	0.36	9102	2.21	856	1.23	0.43					
8726F	3.07	1127	1.23	0.30	9154	1.37	592	0.75	0.43					
8734M	0.31	258	0.15	0.36	9156	1.40	601	0.74	0.41					
8737M	0.28	248	0.14	0.36	9170	5.04	1500	2.29	0.31					
8738M	0.45	302	0.23	0.36	9178	5.62	1500	3.24	0.49					
8742	0.23	232	0.12	0.36	9179	9.59	1500	5.38	0.44					
8745	2.70	1011	1.45	0.41	9180	5.42	1500	2.70	0.35					
8748	0.44	299	0.23	0.41	9182	1.55	648	0.85	0.43					
8755	0.18	217	0.09	0.36	9186	7.96	1500	3.78	0.32					
8799	0.81	415	0.44	0.43	9220	3.27	1190	1.74	0.41					
8800	1.25	554	0.73	0.49	9402	2.59	976	1.33	0.36					
8803	0.06	179	0.03	0.36	9403	3.96	1407	1.93	0.32					
8805M	0.19	220	0.10	0.43	9410	1.61	667	0.89	0.43					
8810	0.14	204	0.08	0.43	9501	2.37	907	1.27	0.41					
8814M	0.17	214	0.10	0.43	9505	2.51	951	1.35	0.41					
8815M	0.27	245	0.15	0.43	9516	3.31	1203	1.71	0.36					
8820	0.11	195	0.06	0.41	9519	3.49	1259	1.80	0.36					
8824	2.02	796	1.14	0.44	9521	1.83	736	0.93	0.36					
8825	1.22	544	0.71	0.49	9522	1.89	755	1.04	0.43					
8826	1.41	604	0.78	0.43	9534	1.87	749	0.92	0.32					
8829	1.54	645	0.85	0.43	9554	5.54	1500	2.70	0.32					
8831	1.09	503	0.60	0.43	9586	0.40	286	0.23	0.49					
8832	0.20	223	0.11	0.43	9600	1.37	592	0.79	0.44					
8833	0.65	365	0.36	0.43	9620	0.68	374	0.36	0.41					
8835	1.80	727	1.00	0.43										
8842	2.63	988	1.45	0.43										
8855	0.14	204	0.07	0.43										
8856	0.26	242	0.14	0.43										
8864	1.19	535	0.66	0.43										
8868	0.29	251	0.16	0.44										
8869	0.96	462	0.54	0.44										
8871	0.08	185	0.04	0.44										
8901	0.14	204	0.07	0.42										
9012	0.95	459	0.51	0.41										

\* Refer to the Footnotes Page for additional information on this class code.

Effective January 1, 2018  
**APPLICABLE TO ASSIGNED RISK POLICIES ONLY**

**FOOTNOTES**

- a Rate for each individual risk must be obtained by NCCI Customer Service or the Indiana Compensation Rating Bureau (ICRB).
- A Minimum Premium \$100 per ginning location for policy minimum premium computation.
- D Rate for classification already includes the specific disease loading shown in the table below. See **Basic Manual** Rule 3-A-7.

Code No.	Disease Loading	Symbol	Code No.	Disease Loading	Symbol	Code No.	Disease Loading	Symbol
0059D	0.33	S	1624D	0.02	S	4024D	0.03	S
0065D	0.07	S	1710D	0.06	S	5508D	0.05	S
0066D	0.07	S	1803D	0.54	S	6251D	0.05	S
0067D	0.07	S	3081D	0.05	S	6252D	0.04	S
1164D	0.04	S	3082D	0.07	S			
1165D	0.03	S	3085D	0.04	S			

S=Silica

- F Rate provides for coverage under the United States Longshore and Harbor Workers Compensation Act and its extensions. Rate includes a provision for the USL&HW Assessment.
- M Risks are subject to Admiralty Law or Federal Employers Liability Act (FELA). However, the published rate is for risks that voluntarily purchase standard workers compensation and employers liability coverage. A provision for the USL&HW Assessment is included for those classifications under Program II USL Act. The listed codes of 6702, 6703, 6704, 7151, 7152, 7153, 8734, 8737, 8738, 8805, 8814, and 8815 under the Federal Employers' Liability Act (FELA) for employees of interstate railroads are not applicable in the residual market.
- N This code is part of a ratable / non-ratable group shown below. The statistical non-ratable code and corresponding rate are applied in addition to the basic classification when determining premium.

Class Code	Non-Ratable Element Code
4766	0766
4771	0771
7405	7445
7431	7453

- P Classification is computed on a per capita basis.
- X Refer to special classification phraseology in these pages which is applicable in this state.

**\* Class Codes with Specific Footnotes**

- 1005 Rate includes a non-ratable disease element of \$0.77. (For coverage written separately for federal benefits only, \$0.75. For coverage written separately for state benefits only, \$0.02.)
- 1016 Rate includes a non-ratable disease element of \$2.30. (For coverage written separately for federal benefits only, \$2.25. For coverage written separately for state benefits only, \$0.05.)
- 6702 Rate and rating values only appropriate for laying or relaying of tracks or maintenance of way - no work on elevated railroads. Otherwise, assign appropriate construction or erection code rate and elr each x 1.215.
- 6703 Rate and rating values only appropriate for laying or relaying of tracks or maintenance of way - no work on elevated railroads. Otherwise, assign appropriate construction or erection class rate x 1.952 and elr x 1.891.
- 6704 Rate and rating values only appropriate for laying or relaying of tracks or maintenance of way - no work on elevated railroads. Otherwise, assign appropriate construction or erection class rate and elr each x 1.35.

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## APPLICABLE TO ASSIGNED RISK POLICIES ONLY

## MISCELLANEOUS VALUES

**Basis of premium** applicable in accordance with **Basic Manual** footnote instructions for Code 7370 --

"Taxicab Co.":

Employee operated vehicle.....	\$67,200
Leased or rented vehicle.....	\$44,800

**Catastrophe (other than Certified Acts of Terrorism)** - (Assigned Risk)..... 0.01**Expense Constant** applicable in accordance with **Basic Manual** Rule 3-A-11..... \$160**Loss Sensitive Rating Plan (LSRP)** - The factors which are used in the calculation of the LSRP are as follows:

Basic Premium Factor	0.40	Loss Development Factors	
Minimum Premium Factor	0.75	1st Adjustment	0.06
Maximum Premium Factor	1.75	2nd Adjustment	0.03
Loss Conversion Factor	1.166	3rd Adjustment	0.02
Tax Multiplier	1.016	4th Adjustment	0.02

**Maximum Weekly Payroll** applicable in accordance with **Basic Manual** Rule 2-E – “Executive Officers,” “Partners, Sole Proprietors, and Members or Managers of Limited Liability Companies” as amended in Indiana Special Rules, and the **Basic Manual** footnote instructions for Code 9178 – “Athletic Sports or Park: Non-Contact Sports,” and Code 9179 – “Athletic Sports or Park: Contact Sports”..... \$3,400

**Minimum Weekly Payroll** applicable in accordance with **Basic Manual** Rule 2-E – “Executive Officers” and “Partners, Sole Proprietors, and Members or Managers of Limited Liability Companies”..... \$750

**Premium Reduction Percentages** - The following percentages are applicable by deductible amount and hazard group for total losses on a per claim basis:

Deductible Amount	With Coinsurance Premium Reduction Percentages HAZARD GROUP						
	A	B	C	D	E	F	G
\$0	7.5%	6.6%	6.1%	5.3%	4.7%	3.9%	3.5%
\$500	11.9%	9.8%	9.0%	7.6%	6.3%	5.0%	4.6%
\$1,000	14.7%	12.1%	11.0%	9.2%	7.6%	5.9%	5.5%
\$1,500	16.8%	13.8%	12.6%	10.4%	8.6%	6.7%	6.3%
\$2,000	18.4%	15.1%	13.8%	11.4%	9.5%	7.3%	7.0%
\$2,500	19.8%	16.3%	14.8%	12.3%	10.2%	7.9%	7.5%
\$3,000	20.9%	17.3%	15.7%	13.1%	10.9%	8.5%	8.0%
\$3,500	21.9%	18.2%	16.6%	13.8%	11.5%	9.0%	8.4%
\$4,000	22.8%	19.0%	17.3%	14.5%	12.1%	9.5%	8.8%
\$4,500	23.7%	19.7%	18.0%	15.1%	12.6%	9.9%	9.2%
\$5,000	24.4%	20.4%	18.6%	15.6%	13.1%	10.3%	9.6%



Effective January 1, 2018

## APPLICABLE TO ASSIGNED RISK POLICIES ONLY

## MISCELLANEOUS VALUES (cont.)

Deductible Amount	Without Coinsurance Premium Reduction Percentages HAZARD GROUP						
	A	B	C	D	E	F	G
\$500	5.5%	4.1%	3.7%	2.8%	2.1%	1.4%	1.4%
\$1,000	9.0%	6.9%	6.2%	4.8%	3.7%	2.5%	2.5%
\$1,500	11.6%	9.0%	8.1%	6.3%	5.0%	3.5%	3.5%
\$2,000	13.6%	10.7%	9.6%	7.6%	6.0%	4.3%	4.3%
\$2,500	15.3%	12.1%	10.9%	8.7%	7.0%	5.0%	5.0%
\$3,000	16.7%	13.4%	12.0%	9.7%	7.8%	5.7%	5.6%
\$3,500	18.0%	14.5%	13.1%	10.6%	8.6%	6.4%	6.1%
\$4,000	19.1%	15.5%	14.0%	11.4%	9.3%	6.9%	6.6%
\$4,500	20.1%	16.4%	14.8%	12.2%	10.0%	7.5%	7.1%
\$5,000	21.1%	17.3%	15.6%	12.9%	10.6%	8.0%	7.6%

**Terrorism - (Assigned Risk)**..... 0.01

**United States Longshore and Harbor Workers' Compensation Coverage Percentage**  
applicable only in connection with **Basic Manual** Rule 3-A-4..... 60%

(Multiply a Non-F classification rate by a factor of 1.60 to adjust for differences in benefits and loss-based expenses. This factor is the product of the adjustment for differences in benefits (1.51) and the adjustment for differences in loss-based expenses (1.061).)

**Experience Rating Eligibility**

A risk qualifies for experience rating on an intrastate basis when it meets the premium eligibility requirements for the state in which it operates. The eligibility amount varies by rating effective date. The **Experience Rating Plan Manual** should be referenced for the latest approved eligibility amounts by state and by effective date.

A 25% residual market surcharge is applicable to the premium in excess of \$2,500 of the standard premium, subject to audit.



## Indiana

### **Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018**

#### **Proposed Values for Inclusion in the Experience Rating Plan Manual**

The following pages include proposed values for the Experience Rating Plan Manual:

- Table of Weighting Values
- Table of Ballast Values
- Experience rating premium eligibility amounts

*Effective January 1, 2018*  
**TABLE OF WEIGHTING VALUES**  
**APPLICABLE TO ALL POLICIES**  
*Experience Rating Program - ERA*

Expected Losses			Weighting Values	Expected Losses			Weighting Values
0	--	1,581	0.04	891,572	--	940,750	0.44
1,582	--	6,391	0.05	940,751	--	992,776	0.45
6,392	--	11,304	0.06	992,777	--	1,047,905	0.46
11,305	--	16,324	0.07	1,047,906	--	1,106,423	0.47
16,325	--	21,453	0.08	1,106,424	--	1,168,652	0.48
21,454	--	35,882	0.09	1,168,653	--	1,234,960	0.49
35,883	--	53,412	0.10	1,234,961	--	1,305,759	0.50
53,413	--	69,005	0.11	1,305,760	--	1,381,524	0.51
69,006	--	84,188	0.12	1,381,525	--	1,462,796	0.52
84,189	--	99,372	0.13	1,462,797	--	1,550,199	0.53
99,373	--	114,743	0.14	1,550,200	--	1,644,455	0.54
114,744	--	130,406	0.15	1,644,456	--	1,746,402	0.55
130,407	--	146,430	0.16	1,746,403	--	1,857,023	0.56
146,431	--	162,870	0.17	1,857,024	--	1,977,474	0.57
162,871	--	179,768	0.18	1,977,475	--	2,109,127	0.58
179,769	--	197,167	0.19	2,109,128	--	2,253,622	0.59
197,168	--	215,102	0.20	2,253,623	--	2,412,935	0.60
215,103	--	233,611	0.21	2,412,936	--	2,589,468	0.61
233,612	--	252,730	0.22	2,589,469	--	2,786,173	0.62
252,731	--	272,499	0.23	2,786,174	--	3,006,719	0.63
272,500	--	292,957	0.24	3,006,720	--	3,255,720	0.64
292,958	--	314,145	0.25	3,255,721	--	3,539,063	0.65
314,146	--	336,107	0.26	3,539,064	--	3,864,381	0.66
336,108	--	358,890	0.27	3,864,382	--	4,241,746	0.67
358,891	--	382,544	0.28	4,241,747	--	4,684,738	0.68
382,545	--	407,122	0.29	4,684,739	--	5,212,105	0.69
407,123	--	432,682	0.30	5,212,106	--	5,850,495	0.70
432,683	--	459,286	0.31	5,850,496	--	6,639,090	0.71
459,287	--	487,000	0.32	6,639,091	--	7,637,974	0.72
487,001	--	515,899	0.33	7,637,975	--	8,944,202	0.73
515,900	--	546,060	0.34	8,944,203	--	10,725,418	0.74
546,061	--	577,569	0.35	10,725,419	--	13,298,281	0.75
577,570	--	610,521	0.36	13,298,282	--	17,341,343	0.76
610,522	--	645,017	0.37	17,341,344	--	24,618,848	0.77
645,018	--	681,170	0.38	24,618,849	--	41,599,677	0.78
681,171	--	719,103	0.39	41,599,678	--	126,503,784	0.79
719,104	--	758,952	0.40	126,503,785	AND OVER		0.80
758,953	--	800,866	0.41				
800,867	--	845,011	0.42				
845,012	--	891,571	0.43				

(a) G . . . . .	7.55
(b) State Per Claim Accident Limitation . . . . .	\$188,500
(c) State Multiple Claim Accident Limitation . . . . .	\$377,000
(d) USL&HW Per Claim Accident Limitation . . . . .	\$831,500
(e) USL&HW Multiple Claim Accident Limitation . . . . .	\$1,663,000
(f) Employers Liability Accident Limitation . . . . .	\$55,000
(g) Primary/Excess Loss Split Point . . . . .	\$16,500
(h) USL&HW Act -- Expected Loss Factor -- Non-F Classes . . . . .	1.54
<i>(Multiply a Non-F classification ELR by the USL&amp;HW Act - Expected Loss Factor of 1.54.)</i>	

*Effective January 1, 2018*  
**TABLE OF BALLAST VALUES**  
**APPLICABLE TO ALL POLICIES**  
*Experience Rating Plan - ERA*

Expected Losses			Ballast Values	Expected Losses			Ballast Values	Expected Losses			Ballast Values
0	--	40,610	18,875	1,303,138	--	1,340,866	151,000	2,624,005	--	2,661,749	283,125
40,611	--	69,893	22,650	1,340,867	--	1,378,595	154,775	2,661,750	--	2,699,493	286,900
69,894	--	103,541	26,425	1,378,596	--	1,416,326	158,550	2,699,494	--	2,737,238	290,675
103,542	--	139,036	30,200	1,416,327	--	1,454,058	162,325	2,737,239	--	2,774,983	294,450
139,037	--	175,396	33,975	1,454,059	--	1,491,791	166,100	2,774,984	--	2,812,728	298,225
175,397	--	212,211	37,750	1,491,792	--	1,529,524	169,875	2,812,729	--	2,850,474	302,000
212,212	--	249,293	41,525	1,529,525	--	1,567,259	173,650	2,850,475	--	2,888,219	305,775
249,294	--	286,543	45,300	1,567,260	--	1,604,994	177,425	2,888,220	--	2,925,965	309,550
286,544	--	323,905	49,075	1,604,995	--	1,642,730	181,200	2,925,966	--	2,963,710	313,325
323,906	--	361,345	52,850	1,642,731	--	1,680,466	184,975	2,963,711	--	3,001,456	317,100
361,346	--	398,843	56,625	1,680,467	--	1,718,203	188,750	3,001,457	--	3,039,202	320,875
398,844	--	436,383	60,400	1,718,204	--	1,755,941	192,525	3,039,203	--	3,076,948	324,650
436,384	--	473,956	64,175	1,755,942	--	1,793,679	196,300	3,076,949	--	3,114,694	328,425
473,957	--	511,555	67,950	1,793,680	--	1,831,418	200,075	3,114,695	--	3,152,440	332,200
511,556	--	549,174	71,725	1,831,419	--	1,869,157	203,850	3,152,441	--	3,190,187	335,975
549,175	--	586,809	75,500	1,869,158	--	1,906,896	207,625	3,190,188	--	3,227,933	339,750
586,810	--	624,459	79,275	1,906,897	--	1,944,636	211,400	3,227,934	--	3,265,679	343,525
624,460	--	662,119	83,050	1,944,637	--	1,982,376	215,175	3,265,680	--	3,303,426	347,300
662,120	--	699,789	86,825	1,982,377	--	2,020,117	218,950	3,303,427	--	3,341,173	351,075
699,790	--	737,468	90,600	2,020,118	--	2,057,858	222,725	3,341,174	--	3,378,919	354,850
737,469	--	775,153	94,375	2,057,859	--	2,095,599	226,500	3,378,920	--	3,416,666	358,625
775,154	--	812,844	98,150	2,095,600	--	2,133,341	230,275	3,416,667	--	3,454,413	362,400
812,845	--	850,540	101,925	2,133,342	--	2,171,083	234,050	3,454,414	--	3,492,160	366,175
850,541	--	888,241	105,700	2,171,084	--	2,208,825	237,825	3,492,161	--	3,529,907	369,950
888,242	--	925,946	109,475	2,208,826	--	2,246,567	241,600	3,529,908	--	3,567,654	373,725
925,947	--	963,654	113,250	2,246,568	--	2,284,310	245,375	3,567,655	--	3,605,125	377,500
963,655	--	1,001,365	117,025	2,284,311	--	2,322,053	249,150				
1,001,366	--	1,039,080	120,800	2,322,054	--	2,359,796	252,925				
1,039,081	--	1,076,796	124,575	2,359,797	--	2,397,540	256,700				
1,076,797	--	1,114,515	128,350	2,397,541	--	2,435,283	260,475				
1,114,516	--	1,152,236	132,125	2,435,284	--	2,473,027	264,250				
1,152,237	--	1,189,959	135,900	2,473,028	--	2,510,771	268,025				
1,189,960	--	1,227,684	139,675	2,510,772	--	2,548,515	271,800				
1,227,685	--	1,265,410	143,450	2,548,516	--	2,586,259	275,575				
1,265,411	--	1,303,137	147,225	2,586,260	--	2,624,004	279,350				

For Expected Losses greater than \$3,605,125, the Ballast Value can be calculated using the following formula (rounded to the nearest 1):

$$\text{Ballast} = (0.10)(\text{Expected Losses}) + 2500(\text{Expected Losses})(7.55) / (\text{Expected Losses} + (700)(7.55))$$

$$G = 7.55$$

# NATIONAL COUNCIL ON COMPENSATION INSURANCE, INC.

## INDIANA—UPDATE TO EXPERIENCE RATING PREMIUM ELIGIBILITY AMOUNTS

### EXPERIENCE RATING PLAN MANUAL—2003 EDITION RULE 2—EXPERIENCE RATING ELEMENTS AND FORMULA A. PREMIUM ELIGIBILITY

#### 2. State Subject Premium Eligibility Amounts

A risk qualifies for experience rating when its subject premium, developed in its experience period, meets or exceeds the minimum eligibility amount shown in the State Table of Subject Premium Eligibility Amounts in Rule 2-A-2-c. *Refer to Rule 2-E-1 to determine a risk's experience period.*

- A risk qualifies for experience rating if its data within the most recent 24 months of the experience period develops a subject premium of at least the amount shown in Column A.
- A risk may not qualify according to Rule 2-A-2-a. If it has more than the amount of experience referenced in Rule 2-A-2-a, then to qualify for experience rating the risk must develop an average annual subject premium of at least the amount shown in Column B. *Refer to Rule 2-A-3 to determine average annual subject premium.*
- A risk's rating effective date determines the applicable Column A and Column B subject premium eligibility amounts required to qualify for experience rating. *Refer to Rule 2-B for rating effective date determination.*

**State Table of Subject Premium Eligibility Amounts**

<u>State</u>	<u>Rating Effective Date</u>	<u>Column A (\$)</u>	<u>Column B (\$)</u>
IN	<u>7/1/18 and after</u>	<u>5,500</u>	<u>2,750</u>
	<u>7/1/17 - 6/30/18</u>	<u>5,000</u>	<u>2,500</u>
	<u>6/30/17 and before</u>	<u>5,000</u>	<u>2,500</u>

NOTE: This exhibit revises the Indiana experience rating subject premium eligibility amounts shown in the State Table of Subject Premium Eligibility Amounts in NCCI's ***Experience Rating Plan Manual*** national Rule 2-A-2. The content shown in this table is not a complete replacement of the existing State Table of Subject Premium Eligibility Amounts. The premium eligibility amounts are applicable to all policies.



## Indiana

### **Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018**

#### **Proposed Values for Inclusion in the Retrospective Rating Plan Manual**

The following pages include values for inclusion in the Retrospective Rating Plan Manual:

- Hazard group differentials
- Table of expected loss ranges
- Excess loss factors
- Excess loss and allocated expense factors
- Excess loss pure premium factors
- Retrospective pure premium development factors

**RETROSPECTIVE RATING PLAN MANUAL**  
**STATE SPECIAL RATING VALUES**

**INDIANA**

APPLICABLE TO ADVISORY RATES

**Effective January 1, 2018**

**1. Hazard Group Differentials**

A	B	C	D	E	F	G
1.62	1.31	1.22	1.04	0.88	0.74	0.65

**2. Tax Multipliers**

a. State (non-F Classes)	1.016
b. Federal Classes, or non-F classes where rate is increased by the USL&HW Act Percentage	1.053

Countrywide <u>Expected Loss Ratio</u>	Countrywide Expected Loss and <u>Allocated Expense Ratio</u>
0.582	0.659

**4. Table of Expense Ratios**

Type A: 2017-01  
Type B: 2017-01

**5. 2013 Table of Expected Loss Ranges**

Effective January 1, 2013

**6. Excess Loss Factors**

(Applicable to New and Renewal Policies)

Per Accident <u>Limitation</u>	<u>Hazard Groups</u>						
	A	B	C	D	E	F	G
\$10,000	0.397	0.433	0.449	0.476	0.499	0.525	0.534
\$15,000	0.356	0.395	0.413	0.442	0.468	0.496	0.508
\$20,000	0.325	0.365	0.383	0.414	0.441	0.472	0.486
\$25,000	0.298	0.339	0.357	0.389	0.418	0.450	0.467
\$30,000	0.276	0.317	0.335	0.368	0.398	0.431	0.449
\$35,000	0.257	0.298	0.316	0.348	0.379	0.413	0.432
\$40,000	0.240	0.281	0.299	0.331	0.362	0.397	0.417
\$50,000	0.213	0.252	0.270	0.302	0.333	0.368	0.390
\$75,000	0.166	0.201	0.217	0.247	0.278	0.313	0.337
\$100,000	0.135	0.167	0.182	0.210	0.240	0.273	0.298
\$125,000	0.114	0.143	0.157	0.183	0.211	0.242	0.267
\$150,000	0.099	0.125	0.138	0.162	0.188	0.218	0.243
\$175,000	0.087	0.111	0.123	0.145	0.170	0.198	0.223
\$200,000	0.078	0.100	0.111	0.132	0.156	0.182	0.206
\$225,000	0.070	0.091	0.101	0.120	0.143	0.168	0.192
\$250,000	0.064	0.083	0.093	0.111	0.133	0.157	0.180
\$275,000	0.058	0.077	0.086	0.103	0.124	0.146	0.170
\$300,000	0.054	0.071	0.080	0.096	0.116	0.138	0.160
\$325,000	0.050	0.066	0.075	0.090	0.109	0.130	0.152
\$350,000	0.046	0.062	0.070	0.085	0.103	0.123	0.145
\$375,000	0.043	0.058	0.066	0.080	0.098	0.116	0.138
\$400,000	0.041	0.055	0.062	0.075	0.093	0.111	0.132
\$425,000	0.038	0.052	0.059	0.072	0.088	0.106	0.126
\$450,000	0.036	0.049	0.056	0.068	0.084	0.101	0.121
\$475,000	0.034	0.046	0.053	0.065	0.081	0.097	0.117
\$500,000	0.032	0.044	0.051	0.062	0.077	0.093	0.113
\$600,000	0.027	0.037	0.043	0.053	0.066	0.080	0.098
\$700,000	0.023	0.032	0.037	0.045	0.058	0.070	0.088
\$800,000	0.019	0.028	0.032	0.040	0.051	0.062	0.079
\$900,000	0.017	0.024	0.029	0.036	0.046	0.056	0.072
\$1,000,000	0.015	0.022	0.026	0.032	0.042	0.051	0.066
\$2,000,000	0.006	0.010	0.012	0.015	0.021	0.026	0.037
\$3,000,000	0.004	0.006	0.008	0.010	0.014	0.017	0.025
\$4,000,000	0.003	0.004	0.005	0.007	0.010	0.012	0.019
\$5,000,000	0.002	0.003	0.004	0.005	0.007	0.010	0.015
\$6,000,000	0.001	0.002	0.003	0.004	0.006	0.008	0.012
\$7,000,000	0.001	0.002	0.002	0.003	0.005	0.006	0.010
\$8,000,000	0.001	0.001	0.002	0.002	0.004	0.005	0.008
\$9,000,000	0.001	0.001	0.002	0.002	0.003	0.004	0.007
\$10,000,000	0.001	0.001	0.001	0.002	0.003	0.004	0.006

**RETROSPECTIVE RATING PLAN MANUAL**  
**STATE SPECIAL RATING VALUES**

**INDIANA**

APPLICABLE TO ADVISORY RATES

**Effective January 1, 2018**

**Excess Loss and  
Allocated Expense Factors**  
(Applicable to New and Renewal Policies)

Per Accident Limitation	Hazard Groups						
	A	B	C	D	E	F	G
\$10,000	0.445	0.483	0.501	0.529	0.554	0.581	0.589
\$15,000	0.402	0.443	0.462	0.493	0.521	0.551	0.563
\$20,000	0.368	0.411	0.430	0.463	0.493	0.525	0.540
\$25,000	0.340	0.384	0.403	0.437	0.468	0.503	0.519
\$30,000	0.316	0.360	0.380	0.414	0.447	0.482	0.500
\$35,000	0.295	0.339	0.359	0.394	0.427	0.463	0.483
\$40,000	0.277	0.320	0.340	0.375	0.409	0.446	0.467
\$50,000	0.247	0.289	0.308	0.343	0.378	0.416	0.438
\$75,000	0.194	0.233	0.251	0.284	0.318	0.356	0.381
\$100,000	0.161	0.196	0.212	0.243	0.275	0.312	0.338
\$125,000	0.137	0.169	0.184	0.212	0.243	0.278	0.305
\$150,000	0.119	0.149	0.163	0.189	0.218	0.251	0.278
\$175,000	0.106	0.133	0.146	0.171	0.198	0.230	0.256
\$200,000	0.095	0.120	0.133	0.155	0.182	0.212	0.238
\$225,000	0.086	0.110	0.121	0.143	0.168	0.196	0.222
\$250,000	0.079	0.101	0.112	0.132	0.156	0.183	0.208
\$275,000	0.073	0.093	0.104	0.123	0.146	0.172	0.196
\$300,000	0.067	0.087	0.097	0.115	0.137	0.162	0.186
\$325,000	0.062	0.081	0.091	0.108	0.130	0.153	0.177
\$350,000	0.058	0.076	0.086	0.102	0.123	0.145	0.168
\$375,000	0.055	0.072	0.081	0.096	0.116	0.138	0.161
\$400,000	0.051	0.068	0.076	0.091	0.111	0.131	0.154
\$425,000	0.049	0.064	0.073	0.087	0.106	0.126	0.148
\$450,000	0.046	0.061	0.069	0.083	0.101	0.120	0.142
\$475,000	0.044	0.058	0.066	0.079	0.097	0.115	0.137
\$500,000	0.041	0.055	0.063	0.076	0.093	0.111	0.132
\$600,000	0.034	0.047	0.053	0.065	0.080	0.096	0.116
\$700,000	0.029	0.040	0.046	0.056	0.070	0.084	0.104
\$800,000	0.025	0.035	0.041	0.050	0.063	0.075	0.094
\$900,000	0.022	0.031	0.036	0.044	0.056	0.068	0.086
\$1,000,000	0.020	0.028	0.033	0.040	0.051	0.062	0.079
\$2,000,000	0.009	0.013	0.016	0.019	0.026	0.032	0.044
\$3,000,000	0.005	0.008	0.010	0.012	0.017	0.021	0.030
\$4,000,000	0.004	0.005	0.007	0.009	0.012	0.015	0.023
\$5,000,000	0.003	0.004	0.005	0.006	0.009	0.012	0.018
\$6,000,000	0.002	0.003	0.004	0.005	0.007	0.009	0.014
\$7,000,000	0.002	0.002	0.003	0.004	0.006	0.008	0.012
\$8,000,000	0.001	0.002	0.003	0.003	0.005	0.006	0.010
\$9,000,000	0.001	0.002	0.002	0.003	0.004	0.005	0.009
\$10,000,000	0.001	0.002	0.002	0.002	0.003	0.005	0.007

7.

**Retrospective Development Factors**

With Loss Limit			Without Loss Limit			4th & Subsequent Adjustment
1st Adj.	2nd Adj.	3rd Adj.	1st Adj.	2nd Adj.	3rd Adj.	
0.02	0.01	0.01	0.06	0.03	0.02	0.00



**RETROSPECTIVE RATING PLAN MANUAL**  
**STATE SPECIAL RATING VALUES**

APPLICABLE TO ADVISORY LOSS COSTS

**INDIANA**

***Effective January 1, 2018***

1. **Hazard Group Differentials**

<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
1.62	1.31	1.22	1.04	0.88	0.74	0.65

2. **2013 Table of Expected Loss Ranges**

Effective January 1, 2013

3.

**Excess Loss Pure Premium Factors**

(Applicable to New and Renewal Policies)

<b>Per Accident Limitation</b>	<b>Hazard Groups</b>						
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
\$10,000	0.543	0.592	0.615	0.652	0.683	0.719	0.730
\$15,000	0.488	0.541	0.565	0.605	0.640	0.679	0.696
\$20,000	0.444	0.499	0.524	0.566	0.604	0.646	0.666
\$25,000	0.408	0.464	0.489	0.532	0.572	0.616	0.639
\$30,000	0.378	0.433	0.459	0.503	0.544	0.590	0.614
\$35,000	0.352	0.407	0.432	0.477	0.519	0.565	0.592
\$40,000	0.329	0.384	0.409	0.453	0.496	0.543	0.571
\$50,000	0.291	0.345	0.369	0.413	0.456	0.504	0.534
\$75,000	0.227	0.275	0.297	0.338	0.381	0.428	0.461
\$100,000	0.185	0.229	0.249	0.287	0.328	0.373	0.407
\$125,000	0.157	0.196	0.215	0.250	0.288	0.331	0.366
\$150,000	0.135	0.171	0.189	0.221	0.258	0.298	0.333
\$175,000	0.119	0.152	0.169	0.198	0.233	0.271	0.305
\$200,000	0.106	0.137	0.152	0.180	0.213	0.249	0.283
\$225,000	0.096	0.124	0.139	0.165	0.196	0.230	0.263
\$250,000	0.087	0.114	0.127	0.152	0.182	0.214	0.247
\$275,000	0.080	0.105	0.118	0.141	0.169	0.200	0.232
\$300,000	0.074	0.097	0.110	0.131	0.159	0.188	0.219
\$325,000	0.068	0.090	0.102	0.123	0.149	0.178	0.208
\$350,000	0.063	0.085	0.096	0.116	0.141	0.168	0.198
\$375,000	0.059	0.079	0.090	0.109	0.134	0.159	0.189
\$400,000	0.056	0.075	0.085	0.103	0.127	0.152	0.180
\$425,000	0.052	0.071	0.081	0.098	0.121	0.145	0.173
\$450,000	0.049	0.067	0.077	0.093	0.115	0.138	0.166
\$475,000	0.047	0.064	0.073	0.089	0.110	0.132	0.160
\$500,000	0.044	0.061	0.070	0.085	0.106	0.127	0.154
\$600,000	0.036	0.051	0.059	0.072	0.091	0.109	0.135
\$700,000	0.031	0.043	0.051	0.062	0.079	0.096	0.120
\$800,000	0.027	0.038	0.044	0.055	0.070	0.085	0.108
\$900,000	0.023	0.033	0.040	0.049	0.063	0.077	0.099
\$1,000,000	0.021	0.030	0.035	0.044	0.057	0.070	0.091
\$2,000,000	0.009	0.013	0.017	0.021	0.029	0.036	0.051
\$3,000,000	0.005	0.008	0.010	0.013	0.019	0.024	0.035
\$4,000,000	0.003	0.006	0.007	0.009	0.013	0.017	0.026
\$5,000,000	0.003	0.004	0.005	0.007	0.010	0.013	0.020
\$6,000,000	0.002	0.003	0.004	0.005	0.008	0.010	0.017
\$7,000,000	0.002	0.002	0.003	0.004	0.006	0.008	0.014
\$8,000,000	0.001	0.002	0.003	0.003	0.005	0.007	0.011
\$9,000,000	0.001	0.002	0.002	0.003	0.004	0.006	0.010
\$10,000,000	0.001	0.001	0.002	0.002	0.004	0.005	0.008

**RETROSPECTIVE RATING PLAN MANUAL**  
**STATE SPECIAL RATING VALUES**

APPLICABLE TO ADVISORY LOSS COSTS

**INDIANA**

*Effective January 1, 2018*

**Excess Loss and Allocated  
Expense Pure Premium Factors**  
(Applicable to New and Renewal Policies)

Per Accident Limitation	Hazard Groups						
	A	B	C	D	E	F	G
\$10,000	0.609	0.661	0.685	0.724	0.757	0.794	0.806
\$15,000	0.550	0.607	0.632	0.675	0.712	0.754	0.770
\$20,000	0.504	0.562	0.589	0.634	0.674	0.719	0.739
\$25,000	0.465	0.525	0.552	0.598	0.641	0.688	0.710
\$30,000	0.432	0.492	0.519	0.567	0.611	0.660	0.685
\$35,000	0.403	0.464	0.491	0.539	0.584	0.634	0.661
\$40,000	0.379	0.438	0.465	0.514	0.559	0.610	0.639
\$50,000	0.337	0.396	0.422	0.470	0.517	0.569	0.600
\$75,000	0.266	0.319	0.343	0.388	0.435	0.487	0.521
\$100,000	0.220	0.268	0.290	0.332	0.376	0.426	0.463
\$125,000	0.187	0.231	0.252	0.291	0.333	0.380	0.417
\$150,000	0.163	0.204	0.223	0.259	0.299	0.344	0.380
\$175,000	0.145	0.182	0.200	0.233	0.271	0.314	0.350
\$200,000	0.130	0.164	0.181	0.213	0.249	0.289	0.325
\$225,000	0.118	0.150	0.166	0.195	0.230	0.268	0.304
\$250,000	0.108	0.138	0.153	0.181	0.214	0.250	0.285
\$275,000	0.099	0.128	0.142	0.168	0.200	0.235	0.269
\$300,000	0.092	0.119	0.133	0.157	0.188	0.221	0.255
\$325,000	0.085	0.111	0.124	0.148	0.177	0.209	0.242
\$350,000	0.080	0.104	0.117	0.139	0.168	0.198	0.230
\$375,000	0.075	0.098	0.110	0.132	0.159	0.189	0.220
\$400,000	0.070	0.093	0.105	0.125	0.152	0.180	0.211
\$425,000	0.066	0.088	0.099	0.119	0.145	0.172	0.202
\$450,000	0.063	0.083	0.094	0.113	0.138	0.164	0.195
\$475,000	0.060	0.079	0.090	0.108	0.132	0.158	0.187
\$500,000	0.057	0.076	0.086	0.104	0.127	0.152	0.181
\$600,000	0.047	0.064	0.073	0.088	0.109	0.131	0.159
\$700,000	0.040	0.055	0.063	0.077	0.096	0.116	0.142
\$800,000	0.035	0.048	0.056	0.068	0.086	0.103	0.128
\$900,000	0.031	0.043	0.050	0.061	0.077	0.093	0.117
\$1,000,000	0.027	0.038	0.045	0.055	0.070	0.085	0.108
\$2,000,000	0.012	0.018	0.021	0.027	0.036	0.044	0.060
\$3,000,000	0.007	0.011	0.013	0.017	0.023	0.029	0.041
\$4,000,000	0.005	0.008	0.009	0.012	0.017	0.021	0.031
\$5,000,000	0.004	0.006	0.007	0.009	0.013	0.016	0.024
\$6,000,000	0.003	0.004	0.005	0.007	0.010	0.013	0.020
\$7,000,000	0.002	0.003	0.004	0.005	0.008	0.010	0.016
\$8,000,000	0.002	0.003	0.003	0.004	0.007	0.009	0.014
\$9,000,000	0.002	0.002	0.003	0.004	0.006	0.007	0.012
\$10,000,000	0.002	0.002	0.002	0.003	0.005	0.006	0.010

4.

**Retrospective Pure Premium Development Factors**

With Loss Limit			Without Loss Limit			4th & Subsequent Adjustment
1st Adj.	2nd Adj.	3rd Adj.	1st Adj.	2nd Adj.	3rd Adj.	
0.03	0.01	0.01	0.09	0.04	0.03	0.00

# Table of Expense Ratios - Excluding Taxes and Including Profit and Contingencies

Type A: 2017-01

WC Premium Range	Expense	WC Premium Range	Expense	WC Premium Range	Expense
From To	Ratio	From To	Ratio	From To	Ratio
0 - 10,055	0.379	21,928 - 22,469	0.331	393,334 - 424,799	0.283
10,056 - 10,167	0.379	22,470 - 23,037	0.330	424,800 - 461,739	0.282
10,168 - 10,282	0.378	23,038 - 23,636	0.329	461,740 - 505,714	0.281
10,283 - 10,399	0.377	23,637 - 24,266	0.329	505,715 - 558,947	0.280
10,400 - 10,520	0.376	24,267 - 24,931	0.328	558,948 - 624,705	0.279
10,521 - 10,643	0.375	24,932 - 25,633	0.327	624,706 - 707,999	0.279
10,644 - 10,769	0.374	25,634 - 26,376	0.326	708,000 - 816,923	0.278
10,770 - 10,898	0.373	26,377 - 27,164	0.325	816,924 - 965,454	0.277
10,899 - 11,030	0.372	27,165 - 27,999	0.324	965,455 - 1,179,999	0.276
11,031 - 11,165	0.371	28,000 - 28,888	0.323	1,180,000 - 1,517,142	0.275
11,166 - 11,304	0.370	28,889 - 29,836	0.322	1,517,143 - 1,824,799	0.274
11,305 - 11,446	0.369	29,837 - 30,847	0.321	1,824,800 - 1,983,478	0.273
11,447 - 11,592	0.368	30,848 - 31,929	0.320	1,983,479 - 2,172,380	0.272
11,593 - 11,741	0.367	31,930 - 33,090	0.319	2,172,381 - 2,401,052	0.271
11,742 - 11,895	0.366	33,091 - 34,339	0.318	2,401,053 - 2,683,529	0.270
11,896 - 12,052	0.365	34,340 - 35,686	0.317	2,683,530 - 3,041,333	0.269
12,053 - 12,214	0.364	35,687 - 37,142	0.316	3,041,334 - 3,509,230	0.268
12,215 - 12,380	0.363	37,143 - 38,723	0.315	3,509,231 - 4,147,272	0.267
12,381 - 12,551	0.362	38,724 - 40,444	0.314	4,147,273 - 5,068,888	0.266
12,552 - 12,727	0.361	40,445 - 42,325	0.313	5,068,889 - 6,517,142	0.265
12,728 - 12,907	0.360	42,326 - 44,390	0.312	6,517,143 - 9,123,999	0.264
12,908 - 13,093	0.359	44,391 - 46,666	0.311	9,124,000 - 15,206,666	0.263
13,094 - 13,284	0.358	46,667 - 49,189	0.310	15,206,667 - 45,619,999	0.262
13,285 - 13,481	0.357	49,190 - 51,999	0.309	45,620,000 - And Above	0.261
13,482 - 13,684	0.356	52,000 - 55,151	0.308		
13,685 - 13,893	0.355	55,152 - 58,709	0.307		
13,894 - 14,108	0.354	58,710 - 62,758	0.306		
14,109 - 14,330	0.354	62,759 - 67,407	0.305		
14,331 - 14,559	0.353	67,408 - 72,799	0.304		
14,560 - 14,796	0.352	72,800 - 79,130	0.304		
14,797 - 15,041	0.351	79,131 - 86,666	0.303		
15,042 - 15,294	0.350	86,667 - 95,789	0.302		
15,295 - 15,555	0.349	95,790 - 107,058	0.301		
15,556 - 15,826	0.348	107,059 - 121,333	0.300		
15,827 - 16,106	0.347	121,334 - 139,999	0.299		
16,107 - 16,396	0.346	140,000 - 165,454	0.298		
16,397 - 16,697	0.345	165,455 - 200,377	0.297		
16,698 - 17,009	0.344	200,378 - 208,235	0.296		
17,010 - 17,333	0.343	208,236 - 216,734	0.295		
17,334 - 17,669	0.342	216,735 - 225,957	0.294		
17,670 - 18,019	0.341	225,958 - 235,999	0.293		
18,020 - 18,383	0.340	236,000 - 246,976	0.292		
18,384 - 18,762	0.339	246,977 - 259,024	0.291		
18,763 - 19,157	0.338	259,025 - 272,307	0.290		
19,158 - 19,569	0.337	272,308 - 287,027	0.289		
19,570 - 19,999	0.336	287,028 - 303,428	0.288		
20,000 - 20,449	0.335	303,429 - 321,818	0.287		
20,450 - 20,919	0.334	321,819 - 342,580	0.286		
20,920 - 21,411	0.333	342,581 - 366,206	0.285		
21,412 - 21,927	0.332	366,207 - 393,333	0.284		
				First - 10,000	0.0%
				Next - 190,000	9.1%
				Next - 1,550,000	11.3%
				Over - 1,750,000	12.3%
				Expected Loss Ratio:	0.582
				Tax Multiplier:	1.040

# Table of Expense Ratios - Excluding Taxes and Including Profit and Contingencies

Type B: 2017-01

WC Premium Range		Expense Ratio
From	To	
0	- 10,099	0.379
10,100	- 10,303	0.379
10,304	- 10,515	0.378
10,516	- 10,736	0.377
10,737	- 10,967	0.376
10,968	- 11,208	0.375
11,209	- 11,460	0.374
11,461	- 11,724	0.373
11,725	- 11,999	0.372
12,000	- 12,289	0.371
12,290	- 12,592	0.370
12,593	- 12,911	0.369
12,912	- 13,246	0.368
13,247	- 13,599	0.367
13,600	- 13,972	0.366
13,973	- 14,366	0.365
14,367	- 14,782	0.364
14,783	- 15,223	0.363
15,224	- 15,692	0.362
15,693	- 16,190	0.361
16,191	- 16,721	0.360
16,722	- 17,288	0.359
17,289	- 17,894	0.358
17,895	- 18,545	0.357
18,546	- 19,245	0.356

WC Premium Range		Expense Ratio
From	To	
19,246	- 19,999	0.355
20,000	- 20,816	0.354
20,817	- 21,702	0.354
21,703	- 22,666	0.353
22,667	- 23,720	0.352
23,721	- 24,878	0.351
24,879	- 26,153	0.350
26,154	- 27,567	0.349
27,568	- 29,142	0.348
29,143	- 30,909	0.347
30,910	- 32,903	0.346
32,904	- 35,172	0.345
35,173	- 37,777	0.344
37,778	- 40,799	0.343
40,800	- 44,347	0.342
44,348	- 48,571	0.341
48,572	- 53,684	0.340
53,685	- 59,999	0.339
60,000	- 67,999	0.338
68,000	- 78,461	0.337
78,462	- 92,727	0.336
92,728	- 113,333	0.335
113,334	- 145,714	0.334
145,715	- 200,606	0.333
200,607	- 213,548	0.332

WC Premium Range		Expense Ratio
From	To	
213,549	- 228,275	0.331
228,276	- 245,185	0.330
245,186	- 264,799	0.329
264,800	- 287,826	0.329
287,827	- 315,238	0.328
315,239	- 348,421	0.327
348,422	- 389,411	0.326
389,412	- 441,333	0.325
441,334	- 509,230	0.324
509,231	- 601,818	0.323
601,819	- 735,555	0.322
735,556	- 945,714	0.321
945,715	- 1,323,999	0.320
1,324,000	- 1,809,565	0.319
1,809,566	- 1,981,904	0.318
1,981,905	- 2,190,526	0.317
2,190,527	- 2,448,235	0.316
2,448,236	- 2,774,666	0.315
2,774,667	- 3,201,538	0.314
3,201,539	- 3,783,636	0.313
3,783,637	- 4,624,444	0.312
4,624,445	- 5,945,714	0.311
5,945,715	- 8,323,999	0.310
8,324,000	- 13,873,333	0.309
13,873,334	- 41,619,999	0.308
41,620,000	- And Above	0.307
First	- 10,000	0.0%
Next	- 190,000	5.1%
Next	- 1,550,000	6.5%
Over	- 1,750,000	7.5%
Expected Loss Ratio:		0.582
Tax Multiplier:		1.040

# Table of Expense Ratios - Excluding Allocated Loss Adjustment Expense and Taxes and Including Profit and Contingencies

Type A: 2017-01

WC Premium Range From To	Expense Ratio	WC Premium Range From To	Expense Ratio	WC Premium Range From To	Expense Ratio
0 - 10,055	0.302	21,928 - 22,469	0.254	393,334 - 424,799	0.206
10,056 - 10,167	0.301	22,470 - 23,037	0.253	424,800 - 461,739	0.205
10,168 - 10,282	0.300	23,038 - 23,636	0.252	461,740 - 505,714	0.204
10,283 - 10,399	0.299	23,637 - 24,266	0.251	505,715 - 558,947	0.203
10,400 - 10,520	0.298	24,267 - 24,931	0.250	558,948 - 624,705	0.202
10,521 - 10,643	0.297	24,932 - 25,633	0.249	624,706 - 707,999	0.201
10,644 - 10,769	0.296	25,634 - 26,376	0.248	708,000 - 816,923	0.200
10,770 - 10,898	0.295	26,377 - 27,164	0.247	816,924 - 965,454	0.199
10,899 - 11,030	0.294	27,165 - 27,999	0.246	965,455 - 1,179,999	0.198
11,031 - 11,165	0.293	28,000 - 28,888	0.245	1,180,000 - 1,517,142	0.197
11,166 - 11,304	0.292	28,889 - 29,836	0.244	1,517,143 - 1,824,799	0.196
11,305 - 11,446	0.291	29,837 - 30,847	0.243	1,824,800 - 1,983,478	0.195
11,447 - 11,592	0.291	30,848 - 31,929	0.242	1,983,479 - 2,172,380	0.194
11,593 - 11,741	0.290	31,930 - 33,090	0.241	2,172,381 - 2,401,052	0.193
11,742 - 11,895	0.289	33,091 - 34,339	0.241	2,401,053 - 2,683,529	0.192
11,896 - 12,052	0.288	34,340 - 35,686	0.240	2,683,530 - 3,041,333	0.191
12,053 - 12,214	0.287	35,687 - 37,142	0.239	3,041,334 - 3,509,230	0.191
12,215 - 12,380	0.286	37,143 - 38,723	0.238	3,509,231 - 4,147,272	0.190
12,381 - 12,551	0.285	38,724 - 40,444	0.237	4,147,273 - 5,068,888	0.189
12,552 - 12,727	0.284	40,445 - 42,325	0.236	5,068,889 - 6,517,142	0.188
12,728 - 12,907	0.283	42,326 - 44,390	0.235	6,517,143 - 9,123,999	0.187
12,908 - 13,093	0.282	44,391 - 46,666	0.234	9,124,000 - 15,206,666	0.186
13,094 - 13,284	0.281	46,667 - 49,189	0.233	15,206,667 - 45,619,999	0.185
13,285 - 13,481	0.280	49,190 - 51,999	0.232	45,620,000 - And Above	0.184
13,482 - 13,684	0.279	52,000 - 55,151	0.231		
13,685 - 13,893	0.278	55,152 - 58,709	0.230		
13,894 - 14,108	0.277	58,710 - 62,758	0.229		
14,109 - 14,330	0.276	62,759 - 67,407	0.228		
14,331 - 14,559	0.275	67,408 - 72,799	0.227		
14,560 - 14,796	0.274	72,800 - 79,130	0.226		
14,797 - 15,041	0.273	79,131 - 86,666	0.225		
15,042 - 15,294	0.272	86,667 - 95,789	0.224		
15,295 - 15,555	0.271	95,790 - 107,058	0.223		
15,556 - 15,826	0.270	107,059 - 121,333	0.222		
15,827 - 16,106	0.269	121,334 - 139,999	0.221		
16,107 - 16,396	0.268	140,000 - 165,454	0.220		
16,397 - 16,697	0.267	165,455 - 200,377	0.219		
16,698 - 17,009	0.266	200,378 - 208,235	0.218		
17,010 - 17,333	0.266	208,236 - 216,734	0.217		
17,334 - 17,669	0.265	216,735 - 225,957	0.216		
17,670 - 18,019	0.264	225,958 - 235,999	0.216		
18,020 - 18,383	0.263	236,000 - 246,976	0.215		
18,384 - 18,762	0.262	246,977 - 259,024	0.214		
18,763 - 19,157	0.261	259,025 - 272,307	0.213		
19,158 - 19,569	0.260	272,308 - 287,027	0.212		
19,570 - 19,999	0.259	287,028 - 303,428	0.211		
20,000 - 20,449	0.258	303,429 - 321,818	0.210		
20,450 - 20,919	0.257	321,819 - 342,580	0.209		
20,920 - 21,411	0.256	342,581 - 366,206	0.208		
21,412 - 21,927	0.255	366,207 - 393,333	0.207		
				First - 10,000	0.0%
				Next - 190,000	9.1%
				Next - 1,550,000	11.3%
				Over - 1,750,000	12.3%
				Expected Loss and ALAE Ratio:	0.659
				Tax Multiplier:	1.040

# Table of Expense Ratios - Excluding Allocated Loss Adjustment Expense and Taxes and Including Profit and Contingencies

Type B: 2017-01

WC Premium Range From	To	Expense Ratio
0	- 10,099	0.302
10,100	- 10,303	0.301
10,304	- 10,515	0.300
10,516	- 10,736	0.299
10,737	- 10,967	0.298
10,968	- 11,208	0.297
11,209	- 11,460	0.296
11,461	- 11,724	0.295
11,725	- 11,999	0.294
12,000	- 12,289	0.293
12,290	- 12,592	0.292
12,593	- 12,911	0.291
12,912	- 13,246	0.291
13,247	- 13,599	0.290
13,600	- 13,972	0.289
13,973	- 14,366	0.288
14,367	- 14,782	0.287
14,783	- 15,223	0.286
15,224	- 15,692	0.285
15,693	- 16,190	0.284
16,191	- 16,721	0.283
16,722	- 17,288	0.282
17,289	- 17,894	0.281
17,895	- 18,545	0.280
18,546	- 19,245	0.279

WC Premium Range From	To	Expense Ratio
19,246	- 19,999	0.278
20,000	- 20,816	0.277
20,817	- 21,702	0.276
21,703	- 22,666	0.275
22,667	- 23,720	0.274
23,721	- 24,878	0.273
24,879	- 26,153	0.272
26,154	- 27,567	0.271
27,568	- 29,142	0.270
29,143	- 30,909	0.269
30,910	- 32,903	0.268
32,904	- 35,172	0.267
35,173	- 37,777	0.266
37,778	- 40,799	0.266
40,800	- 44,347	0.265
44,348	- 48,571	0.264
48,572	- 53,684	0.263
53,685	- 59,999	0.262
60,000	- 67,999	0.261
68,000	- 78,461	0.260
78,462	- 92,727	0.259
92,728	- 113,333	0.258
113,334	- 145,714	0.257
145,715	- 200,606	0.256
200,607	- 213,548	0.255

WC Premium Range From	To	Expense Ratio
213,549	- 228,275	0.254
228,276	- 245,185	0.253
245,186	- 264,799	0.252
264,800	- 287,826	0.251
287,827	- 315,238	0.250
315,239	- 348,421	0.249
348,422	- 389,411	0.248
389,412	- 441,333	0.247
441,334	- 509,230	0.246
509,231	- 601,818	0.245
601,819	- 735,555	0.244
735,556	- 945,714	0.243
945,715	- 1,323,999	0.242
1,324,000	- 1,809,565	0.241
1,809,566	- 1,981,904	0.241
1,981,905	- 2,190,526	0.240
2,190,527	- 2,448,235	0.239
2,448,236	- 2,774,666	0.238
2,774,667	- 3,201,538	0.237
3,201,539	- 3,783,636	0.236
3,783,637	- 4,624,444	0.235
4,624,445	- 5,945,714	0.234
5,945,715	- 8,323,999	0.233
8,324,000	- 13,873,333	0.232
13,873,334	- 41,619,999	0.231
41,620,000	- And Above	0.230
First	10,000	0.0%
Next	190,000	5.1%
Next	1,550,000	6.5%
Over	1,750,000	7.5%
Expected Loss and ALAE Ratio:		0.659
Tax Multiplier:		1.040



## Indiana

### **Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018**

#### **Part 3    Supporting Exhibits**

- Exhibit I: Determination of the Indicated Rate Level Change
- Exhibit II: Workers Compensation Expense Program
- Appendix A: Factors Underlying the Proposed Rate Level Change
- Appendix B: Calculations Underlying the Rate Change by Classification
- Appendix C: Memoranda for Laws and Assessments



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Exhibit I – Determination of Indicated Rate Level Change

NCCI uses the following general methodology to determine the indicated change based on experience, trend, and benefits for each of the policy years in the experience period:

1. Standard earned premium at Designated Statistical Reporting (DSR) level is developed to ultimate and on-leveled to the current approved advisory rate level
2. Reported indemnity and medical losses are limited by a large loss threshold, developed to ultimate using limited development factors, and on-leveled to a common benefit level to yield adjusted limited losses
3. Limited indemnity and medical cost ratios excluding trend and benefits are calculated as adjusted losses (step 2) divided by premium available for benefit costs (step 1)
4. Trend factors are applied to the indemnity and medical cost ratios to reflect expected differences between the historical experience years and the effective period of the proposed filing
5. An excess provision is applied to adjust the limited cost ratios to an unlimited basis
6. A factor is applied to reflect the impact of proposed indemnity and medical benefit changes
7. The projected unlimited indemnity and medical cost ratios including benefit changes are added to yield the indicated change based on experience, trend, and benefits

The indicated change based on experience, trend, and benefits for this filing is calculated as the average of the indicated changes for each of the individual policy years in the experience period. Lastly, the impact of the change in expense-related provisions is applied to determine the indicated overall average advisory rate level change. The detailed calculations can be found on the following pages.





## INDIANA

### EXHIBIT I

#### Determination of Indicated Rate Level Change

##### Section A - Policy Year 2015 Experience

###### Premium:

(1) Standard Earned Premium Developed to Ultimate (Appendix A-II)	\$780,232,151
(2) Premium On-level Factor (Appendix A-I)	0.561
(3) Premium Adjusted to Current Level = (1) x (2)	\$437,710,237

###### Indemnity Benefit Cost:

(4) Limited Indemnity Losses Developed to Ultimate (Appendix A-II)	\$112,196,036
(5) Indemnity Loss On-level Factor (Appendix A-I)	1.044
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$117,132,662
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.268
(8) Factor to Reflect Indemnity Trend (Appendix A-III)	0.885
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.237
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-II)	1.002
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.237
(12) Factor to Reflect Proposed Changes in Indemnity Benefits	1.000
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.237

###### Medical Benefit Cost:

(14) Limited Medical Losses Developed to Ultimate (Appendix A-II)	\$275,128,983
(15) Medical Loss On-level Factor (Appendix A-I)	1.001
(16) Adjusted Limited Medical Losses = (14) x (15)	\$275,404,112
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.629
(18) Factor to Reflect Medical Trend (Appendix A-III)	0.985
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.620
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis (Appendix A-II)	1.002
(21) Projected Medical Cost Ratio = (19) x (20)	0.621
(22) Factor to Reflect Proposed Changes in Medical Benefits (Appendix C)	1.008
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.626

###### Total Benefit Cost:

(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.863
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## INDIANA

### EXHIBIT I

#### Determination of Indicated Rate Level Change

##### Section B - Policy Year 2014 Experience

###### Premium:

(1) Standard Earned Premium Developed to Ultimate (Appendix A-II)	\$771,230,628
(2) Premium On-level Factor (Appendix A-I)	0.545
(3) Premium Adjusted to Current Level = (1) x (2)	\$420,320,692

###### Indemnity Benefit Cost:

(4) Limited Indemnity Losses Developed to Ultimate (Appendix A-II)	\$109,646,124
(5) Indemnity Loss On-level Factor (Appendix A-I)	1.091
(6) Adjusted Limited Indemnity Losses = (4) x (5)	\$119,623,921
(7) Adjusted Limited Indemnity Cost Ratio excluding Trend and Benefits = (6) / (3)	0.285
(8) Factor to Reflect Indemnity Trend (Appendix A-III)	0.849
(9) Projected Limited Indemnity Cost Ratio = (7) x (8)	0.242
(10) Factor to Adjust Indemnity Cost Ratio to an Unlimited Basis (Appendix A-II)	1.002
(11) Projected Indemnity Cost Ratio = (9) x (10)	0.242
(12) Factor to Reflect Proposed Changes in Indemnity Benefits	1.000
(13) Projected Indemnity Cost Ratio including Benefit Changes = (11) x (12)	0.242

###### Medical Benefit Cost:

(14) Limited Medical Losses Developed to Ultimate (Appendix A-II)	\$277,795,929
(15) Medical Loss On-level Factor (Appendix A-I)	0.996
(16) Adjusted Limited Medical Losses = (14) x (15)	\$276,684,745
(17) Adjusted Limited Medical Cost Ratio excluding Trend and Benefits = (16) / (3)	0.658
(18) Factor to Reflect Medical Trend (Appendix A-III)	0.980
(19) Projected Limited Medical Cost Ratio = (17) x (18)	0.645
(20) Factor to Adjust Medical Cost Ratio to an Unlimited Basis (Appendix A-II)	1.002
(21) Projected Medical Cost Ratio = (19) x (20)	0.646
(22) Factor to Reflect Proposed Changes in Medical Benefits (Appendix C)	1.008
(23) Projected Medical Cost Ratio including Benefit Changes = (21) x (22)	0.651

###### Total Benefit Cost:

(24) Indicated Change Based on Experience, Trend and Benefits = (13) + (23)	0.893
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## INDIANA

### EXHIBIT I

#### Determination of Indicated Rate Level Change

##### Section C - Indicated Change Based on Experience, Trend, and Benefits

(1) Policy Year 2015 Indicated Change Based on Experience, Trend, and Benefits	0.863
(2) Policy Year 2014 Indicated Change Based on Experience, Trend, and Benefits	0.893
(3) Indicated Change Based on Experience, Trend, and Benefits = $[(1)+(2)] / 2$	0.878

##### Section D - Application of the Change in Production and General Expenses

(1) Indicated Rate Level Change	0.878
(2) Effect of the Change in Production and General Expenses (Exhibit II)	0.999
(3) Indicated Change Modified to Reflect the Change in Production and General Expenses = (1) x (2)	0.877

##### Section E - Application of the Change in the Profit and Contingency Provision

(1) Indicated Rate Level Change	0.877
(2) Effect of the Change in the Profit and Contingency Provision (Exhibit II)	0.993
(3) Indicated Change Modified to Reflect the Change in the Profit and Contingency Provision = (1) x (2)	0.871

##### Section F - Application of the Change in Loss-based Expenses

(1) Indicated Rate Level Change	0.871
(2) Effect of the Change in Loss-based Expenses (Exhibit II)	1.001
(3) Indicated Change Modified to Reflect the Change in Loss-based Expenses = (1) x (2)	0.872



## INDIANA

### EXHIBIT I

#### Determination of Indicated Rate Level Change

##### Section G - Distribution of Overall Rate Level Change to Industry Groups

Industry Group Differentials (Appendix A-IV):

Manufacturing	1.007
Contracting	0.981
Office & Clerical	0.986
Goods & Services	1.000
Miscellaneous	1.014

Applying these industry group differentials to the final overall rate level change produces the changes in rate level proposed for each group as shown:

Industry Group	(1) Final Overall Rate Level Change	(2) Industry Group Differential	(3) = (1) x (2) Final Rate Level Change by Industry Group	
Manufacturing	0.872	1.007	0.878	(-12.2%)
Contracting	0.872	0.981	0.855	(-14.5%)
Office & Clerical	0.872	0.986	0.860	(-14.0%)
Goods & Services	0.872	1.000	0.872	(-12.8%)
Miscellaneous	0.872	1.014	0.884	(-11.6%)
Overall	0.872	1.000	0.872	(-12.8%)



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Exhibit II – Workers Compensation Expense Program

The proposed advisory rates include several expense-related provisions as described below.

**Production and General Expenses:** Production costs include commissions, costs of preparing the policy, verifying the correct application of rates and rating plans, billing and collecting premium and the costs of maintaining company branch offices. General expenses are commonly classified into four categories: general administration, audit, boards and bureaus, and inspection expenses.

**Premium Taxes and Assessments:** The proposed advisory rates have a provision for taxes, licenses, and fees (excluding Federal Income Tax) of 1.6%. This includes 1.3% for the Premium Tax and a 0.3% miscellaneous tax provision.

**Profit and Contingency Provision:** By law, Indiana workers compensation rates must be determined so that insurers can be expected to earn a reasonable rate of return. Analysis and determination of a profit and contingency provision is necessary to ensure this premise is maintained.

**Loss-based Expense Provisions:** The proposed advisory rates include a provision for loss adjustment expenses (LAE). LAE is included in the advisory rates by using a ratio of loss adjustment expense dollars to loss dollars (called the LAE provision). These expenses are directly associated with the handling of workers compensation claims. The LAE provision is comprised of two components: Defense and Cost Containment Expenses (DCCE) and Adjusting and Other Expenses (AOE). NCCI uses the following general methodology to determine the proposed LAE provision based on data for private carriers.

1. Using data obtained from the NCCI Call for Loss Adjustment Expense, accident year developed LAE ratios are calculated on a countrywide basis, including separate DCCE and AOE ratio components, in addition to policy year and accident year developed DCCE ratios on a state-specific basis.
2. An Indiana-to-countrywide DCCE relativity is selected based on NAIC Annual Statement data.
3. The Indiana proposed DCCE ratio is calculated as an average of:
  - a. The countrywide-selected DCCE ratio multiplied by the state-to-countrywide DCCE relativity.
  - b. The state-specific DCCE ratios developed using multiplicative and additive methods on both a policy year and accident year basis.
4. Given the nature of AOE, it cannot be allocated to a specific claim, and hence cannot be accurately attributed to specific states. In this filing, the state-specific



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Exhibit II – Workers Compensation Expense Program

AOE ratio reflects the latest selected countrywide provision. A separate AOE provision that had been used in previous filings in Indiana, which was based on NCCI Statistical Plan data and averaged together with the countrywide provision to determine the final AOE provision, is not being considered when determining the final AOE provision for this filing.

**Expense Constant:** Insurer expenses as a proportion of premium vary by size of risk. As risk size increases, marginal expenses tend to diminish. An expense constant helps address these expense differences by size of risk. The expense constant together with the expense provision included in the manual rate provide the necessary funding for insurer expenses

The proposed expenses are reviewed each year and incorporates the most recently available data from the Insurance Expense Exhibit, which is reported annually by insurers to state insurance departments.



## INDIANA

### EXHIBIT II

#### Section A - Comparison of Proposed and Current Expense Provisions

Overhead expense provisions are itemized below. These figures are expressed as percentages of standard premium (excluding expense constant) and are indicative of the expenses of the first \$10,000 of policy premium. Taken together these allowances represent that portion of the standard premium dollar necessary to operate the benefit system. The complementary portion corresponds to the portion of the premium dollar available to finance benefits, loss adjustment expenses and loss-based assessments, if applicable. It is referred to as the "target cost ratio."

	Expense Provisions Underlying <u>Current Rates</u>	Expense Provisions Underlying <u>Proposed Rates</u>
(1) Expense Constant	\$160	\$160
(2) Production Expense	18.2%	18.3%
(3) General Expense	5.2%	5.0%
(4) Taxes, Licenses and Fees (other than Federal Income Tax)		
Premium Tax	1.3%	1.3%
Miscellaneous	0.3%	0.3%
<b>Total</b>	<b>1.6%</b>	<b>1.6%</b>
(5) Profit and Contingency Provision	2.5%	2.0%
(6) Total Overhead Provisions (2)+(3)+(4)+(5)	27.5%	26.9%
(7) Target Cost Ratio [100% - (6)]	72.5%	73.1%
(8) Loss Adjustment Expense	16.5%	16.6%
(9) Loss-based Assessment	0.0%	0.0%
(10) Permissible Loss Ratio (7) / [1+(8)+(9)]	62.2%	62.7%



# INDIANA

## EXHIBIT II

### Section B - Calculation of Change in Expense Provisions

	A	B	C	D
	Current <u>Expenses</u>	Col. A with Proposed Prod & Gen Exp	Col. B with Proposed Taxes	Col. C with Proposed Profit and Contingency
(1) Production Expense	18.2%	18.3%	18.3%	18.3%
(2) General Expense	5.2%	5.0%	5.0%	5.0%
(3) Taxes	1.6%	1.6%	1.6%	1.6%
(4) Profit and Contingency Provision	<u>2.5%</u>	<u>2.5%</u>	<u>2.5%</u>	<u>2.0%</u>
(5) Total Provisions (1)+(2)+(3)+(4)	27.5%	27.4%	27.4%	26.9%
(6) TCR (100%-(5))	72.5%	72.6%	72.6%	73.1%
(7) Loss Based Expenses	16.5%	16.6%	16.6%	16.6%
(8) Change in Production and General Expense (6A) / (6B)			0.999	-0.1%
(9) Change in Taxes and Assessments (6B) / (6C)			1.000	0.0%
(10) Change in Profit and Contingency Provision (6C) / (6D)			0.993	-0.7%
(11) Change in Loss Based Expenses [1.0 + (7B)]/[1.0 + (7A)]			1.001	+0.1%





## INDIANA

### EXHIBIT II

#### **Section C - Countrywide Expense Program**

NCCI annually reviews expense provisions underlying workers compensation rates.

This review procedure is based on countrywide expense data. Since a significant portion of workers compensation insurance is interstate business, it is not practical to allocate expenses (especially general, other acquisition, and adjusting and other loss adjustment expenses) to particular states.

The NCCI expense program is designed to ensure equity among employers through a percentage provision in manual rates, a schedule of premium discounts for risks with standard premium in excess of \$10,000, and the application of an expense constant.

The majority of expenses incurred in workers compensation vary directly by layer of premium and are accordingly termed variable expenses. An equitable apportionment of variable expense is achieved through the application of premium discounts. As the premium for a policy increases, some expenses incurred in handling the insurance coverage become proportionately less in terms of premium. A fair expense program must, therefore, provide that the larger premium policies be charged a lower percentage of premium for these expenses than the smaller policies.

Other expenses such as issuing, recording and auditing are common to all policies regardless of size. These common expenses are called fixed expenses and are addressed by incorporating an expense constant in the program.



## INDIANA

### EXHIBIT II

#### Section D - Derivation of General Expense Provisions

The data below (amounts in thousands) illustrates that the combination of a 5.0% general expense provision in the manual rates, a \$160 expense constant, and the premium discount schedule generates general expense premium dollars that are consistent with historical actual general expenses as reported in the Insurance Expense Exhibit. All figures below obtained from the Insurance Expense Exhibit (IEE) include data for participating stock, non-participating stock, and mutual companies.

	<u>2014</u>	<u>2015</u>	<u>2016</u>
(1) Direct Earned Premium (NAIC Insurance Expense Exhibit Data)	45,490,584	47,962,596	49,589,244
(1a) Effect of Premium Discounts	0.9287	0.9284	0.9283
(1b) Effect of Schedule Rating	0.9613	0.9605	0.9548
(1c) Effect of Carrier Deviations	1.0341	1.0387	1.0312
(1d) Effect of Deductibles	0.7331	0.7375	0.7398
(1e) Expense Constant Offset	0.9918	0.9918	0.9918
(2) Gross Adjusted Premium (STD Premium @ NCCI Level Excl. Expense Constant) $\{(1) / [(1a) \times (1b) \times (1c) \times (1d)]\} \times (1e)$	66,663,095	69,637,333	72,736,701
(3) Direct General Expenses Incurred (NAIC Insurance Expense Exhibit Data)	2,763,969	2,819,889	2,813,993
(3a) Proportion of Expense Constant Attributable to General Expenses	0.4063	0.4063	0.4063
(4) General Expenses Incurred (Excluding Expense Constant Revenue) $(3) - (2) \times [1 - (1e)] / (1e) \times (3a)$	2,540,034	2,585,963	2,569,655
(5) Ratio of General Expense to Premium (Excluding Expense Constant Revenue) $(4) / (2)$	3.81%	3.71%	3.53%
(6) General Expense Gradations (General Expenses in Average Premium Discount)	1.26%	1.27%	1.28%
(7) General Expense Provision $(5) + (6)$	5.07%	4.98%	4.81%
(8) Selected General Expense Provision ( Three-Year Average)			<b>5.0%</b>



# INDIANA

## EXHIBIT II

### Section E - Derivation of Production Expense Provisions

The data below (amounts in thousands) illustrates that the combination of a 18.3% production expense provision in the manual rates, a \$160 expense constant, and the premium discount schedule generates production expense premium dollars that are consistent with historical actual production expenses as reported for combined stock and mutual companies' voluntary business. All figures below obtained from the Insurance Expense Exhibit (IEE) include data for participating stock, non-participating stock, and mutual companies.

	<u>2014</u>	<u>2015</u>	<u>2016</u>
(1) Direct Written Premium (NAIC Insurance Expense Exhibit Data)	46,489,296	48,603,697	49,898,708
(1a) Effect of Premium Discounts	0.9285	0.9283	0.9283
(1b) Effect of Schedule Rating	0.9621	0.9595	0.9516
(1c) Effect of Carrier Deviations	1.0382	1.0391	1.0259
(1d) Effect of Deductibles	0.7344	0.7398	0.7398
(1e) Expense Constant Offset	0.9918	0.9917	0.9917
(2) Pool Written Premium (Summary of NCCI Managed Pools - Combined Stock and Mutual Company Data)	1,176,735	1,214,412	1,156,397
(3) Adjusted Direct Written Premium (STD Premium Excl. Pool Written Premium) [(1)-(2)] / (1a) x (1e)	48,401,721	50,625,826	52,071,259
(4) Gross Direct Written Premium (STD Premium @ NCCI Level Incl. Pool Written Premium) {(1) / [(1a) x (1b) x (1c) x (1d)]} x (1e)	67,695,727	70,395,454	73,808,686
(5) Direct Commission & Brokerage Incurred (NAIC Insurance Expense Exhibit Data)	3,825,389	4,208,419	4,434,236
(6) Pool Producer Fees (Summary of NCCI Managed Pools - Combined Stock and Mutual Company Data)	42,612	42,649	42,149
(7) Direct Other Acquisition Expenses Incurred (NAIC Insurance Expense Exhibit Data)	2,547,194	2,669,227	2,899,995
(7a) Proportion of Expense Constant Attributable to Production Expenses	0.5313	0.5313	0.5313
(8) Other Acquisition Expenses Incurred (Excluding Expense Constant Revenue) (7) - (4) x [1-(1e)]/(1e) x (7a)	2,249,828	2,356,200	2,571,790
(9) Ratio of Other Acq. Expenses to Premium (Excluding Expense Constant Revenue) (8)/(4)	3.32%	3.35%	3.48%
(10) Direct Commission & Brokerage Provision [(5)-(6)]/(3)	7.82%	8.23%	8.43%
(11) Production Expense Gradations (Production Expenses in Average Premium Discount)	6.76%	6.79%	6.79%
(12) Production Expense Provision (9)+(10)+(11)	17.90%	18.37%	18.70%
(13) Selected Production Expense Provision ( Three-Year Average)			<b>18.3%</b>



## INDIANA

### EXHIBIT II

#### Section F - (A) Determination of Loss Adjustment Expense Provision

NCCI has computed the loss adjustment expense allowance on an accident year basis using data obtained from the NCCI Call for Loss Adjustment Expense. For this filing, NCCI proposes a 16.6% loss adjustment expense allowance as a percentage of incurred losses.

Accident Year	Accident Year Developed DCCE Ratio	Accident Year Developed AOE Ratio
2012	13.1%	6.9%
2013	13.2%	7.4%
2014	13.6%	7.4%
2015	13.2%	7.3%
2016	13.2%	7.3%
Countrywide selected:	13.3%	7.3%
<b>Indiana Selected:</b>	<b>9.4%</b>	<b>7.3%</b>
(9.4% = 13.3% x 0.705)		

#### (B) Determination of Indiana DCCE relativity--(Latest 2-years of calendar year data)

(1a) Indiana paid losses (in 000's)	793,713
(1b) Indiana paid DCCE (in 000's)	72,286
(1c) Ratio (1b)/(1a)	9.1%
(2a) Countrywide paid losses (in 000's)	46,571,543
(2b) Countrywide paid DCCE (in 000's)	6,007,900
(2c) Ratio (2b)/(2a)	12.9%
(3) Indiana DCCE relativity (1c)/(2c)	0.705

#### (C) Derivation of Loss Adjustment Expense Provision

(4) Indicated Indiana DCCE Ratio (based on NAIC Annual Statement data - see Section F - (A))	9.4%
(5) Indicated Indiana DCCE Ratio (based on NCCI Financial Call data - see Section F - (D))	9.1%
(6) Selected Indiana DCCE Ratio = [(4) + (5)] / 2	9.3%
(7) Selected Indiana AOE Ratio (based on CW NAIC Annual Statement data - see Section F - (A))	7.3%
(8) Selected Indiana Loss Adjustment Expense Allowance = (6) + (7)	16.6%
(9) Current Indiana Loss Adjustment Expense Allowance	16.5%
(10) Proposed Change in Loss Adjustment Expense Allowance = [1+ (8)] / [1+ (9)] -1	0.1%

#### Notes

NAIC Annual Statement data is used in the above calculations. The countrywide figures exclude state funds.



## INDIANA

### EXHIBIT II

#### (D) Derivation of Expense Provisions - Defense & Cost Containment Expense (Financial data)

##### Additive Method

Policy Year Evaluation Paid DCCE to Paid Losses							
<u>PY</u>	<u>Ratio @16</u>	<u>2 yr avg Factor to Ult.</u>	<u>3 yr avg Factor to Ult.</u>	<u>4 yr avg Factor to Ult.</u>	<u>5 yr avg Factor to Ult.</u>	<u>5 x hilo Factor to Ult.</u>	<u><b>Selected Factor to Ult.</b></u>
2013	0.078	0.008	0.005	0.007	0.005	0.005	0.005
2014	0.081	0.014	0.011	0.012	0.010	0.010	0.011
2015	0.069	0.022	0.019	0.019	0.017	0.016	0.019
<u>PY</u>	<u>Ratio @16</u>	<u>2 yr avg Ultimate Ratio</u>	<u>3 yr avg Ultimate Ratio</u>	<u>4 yr avg Ultimate Ratio</u>	<u>5 yr avg Ultimate Ratio</u>	<u>5 x hilo Ultimate Ratio</u>	<u><b>Selected Ultimate Ratio</b></u>
2013	0.078	0.086	0.083	0.085	0.083	0.083	0.083
2014	0.081	0.095	0.092	0.093	0.091	0.091	0.092
2015	0.069	0.091	0.088	0.088	0.086	0.085	0.088
2 year average							<b>0.090</b>

Accident Year Evaluation Paid DCCE to Paid Losses							
<u>AY</u>	<u>Ratio @16</u>	<u>2 yr avg Factor to Ult.</u>	<u>3 yr avg Factor to Ult.</u>	<u>4 yr avg Factor to Ult.</u>	<u>5 yr avg Factor to Ult.</u>	<u>5 x hilo Factor to Ult.</u>	<u><b>Selected Factor to Ult.</b></u>
2014	0.081	0.009	0.008	0.010	0.008	0.008	0.008
2015	0.076	0.016	0.015	0.017	0.140	0.014	0.015
2016	0.062	0.025	0.024	0.025	0.022	0.021	0.024
<u>AY</u>	<u>Ratio @16</u>	<u>2 yr avg Ultimate Ratio</u>	<u>3 yr avg Ultimate Ratio</u>	<u>4 yr avg Ultimate Ratio</u>	<u>5 yr avg Ultimate Ratio</u>	<u>5 x hilo Ultimate Ratio</u>	<u><b>Selected Ultimate Ratio</b></u>
2014	0.081	0.090	0.089	0.091	0.089	0.089	0.089
2015	0.076	0.092	0.091	0.093	0.090	0.090	0.091
2016	0.062	0.087	0.086	0.087	0.084	0.083	0.086
2 year average							<b>0.089</b>



## INDIANA

### EXHIBIT II

#### (D) Derivation of Expense Provisions - Defense & Cost Containment Expense (Financial data)

##### Chain Ladder Method

##### Policy Year Evaluation Paid DCCE to Paid Losses

<u>PY</u>	<u>Ratio @16</u>	<u>2 yr avg Factor to Ult.</u>	<u>3 yr avg Factor to Ult.</u>	<u>4 yr avg Factor to Ult.</u>	<u>5 yr avg Factor to Ult.</u>	<u>5 x hilo Factor to Ult.</u>	<u>Selected Factor to Ult.</u>
2013	0.078	1.093	1.080	1.083	1.079	1.076	1.080
2014	0.081	1.189	1.171	1.163	1.157	1.153	1.171
2015	0.069	1.334	1.313	1.298	1.280	1.268	1.313

<u>PY</u>	<u>Ratio @16</u>	<u>2 yr avg Ultimate Ratio</u>	<u>3 yr avg Ultimate Ratio</u>	<u>4 yr avg Ultimate Ratio</u>	<u>5 yr avg Ultimate Ratio</u>	<u>5 x hilo Ultimate Ratio</u>	<u>Selected Ultimate Ratio</u>
2013	0.078	0.085	0.084	0.084	0.084	0.084	0.084
2014	0.081	0.096	0.095	0.094	0.094	0.093	0.095
2015	0.069	0.092	0.091	0.090	0.088	0.087	0.091

2 year average **0.093**

##### Accident Year Evaluation Paid DCCE to Paid Losses

<u>AY</u>	<u>Ratio @16</u>	<u>2 yr avg Factor to Ult.</u>	<u>3 yr avg Factor to Ult.</u>	<u>4 yr avg Factor to Ult.</u>	<u>5 yr avg Factor to Ult.</u>	<u>5 x hilo Factor to Ult.</u>	<u>Selected Factor to Ult.</u>
2014	0.081	1.119	1.115	1.118	1.111	1.110	1.115
2015	0.076	1.234	1.234	1.230	1.214	1.215	1.234
2016	0.062	1.417	1.415	1.399	1.368	1.358	1.415

<u>AY</u>	<u>Ratio @16</u>	<u>2 yr avg Ultimate Ratio</u>	<u>3 yr avg Ultimate Ratio</u>	<u>4 yr avg Ultimate Ratio</u>	<u>5 yr avg Ultimate Ratio</u>	<u>5 x hilo Ultimate Ratio</u>	<u>Selected Ultimate Ratio</u>
2014	0.081	0.091	0.090	0.091	0.090	0.090	0.090
2015	0.076	0.094	0.094	0.093	0.092	0.092	0.094
2016	0.062	0.088	0.088	0.087	0.085	0.084	0.088

2 year average **0.091**

**Final selected average 9.1%**



NATIONAL COUNCIL ON COMPENSATION INSURANCE  
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**Overview**

According to actuarial principles, insurance rates must be determined such that insurers can be expected to earn an appropriate rate of return. Analysis and determination of a profit and contingency provision is necessary to ensure this objective is achieved. To determine the profit and contingency provision, NCCI first uses market-based financial methods to estimate the rate of return (also known as the cost of capital) required by investors of securities with a similar risk profile to workers compensation insurance. NCCI then performs an Internal Rate of Return (IRR) analysis to estimate the profit and contingency provision that needs to be included in the proposed rates for insurers to earn the cost of capital, after accounting for investment income.

The IRR model is based on the principle that the internal rate of return from an investment opportunity equals the investor's cost of capital if the sum of all cash flows from that investment, discounted at the cost of capital, equals zero. In the case of workers compensation insurance, cash flows to the capital providers are comprised of insurance cash flows, investment income, and commitment and release of capital in support of the insurance transaction.

- Insurance cash flows consist of premiums earned less payments for expenses, losses, loss adjustment expenses (LAE), and federal income taxes. These cash flows are estimated based on the provisions included in this proposed rate filing.
- Investment income on reserves and surplus depends on an after-tax return on investment (RoI), which is estimated using a combination of current financial market data and forecasts.
- The cost of capital used is a weighted average cost of capital (WACC), which takes into account both debt and equity components of a representative insurer's capital structure.

**IRR Model Inputs and Results**

The model estimates the P&C provision necessary in order for the proposed rates to cover the cost of capital. The P&C provision is estimated using two different assumptions regarding the return on investment and cost of capital:

- The "Static" estimate of the P&C provision assumes that the return on investment and the WACC do not change over time, but remain static at their indicated market values at the time the model was run.
- The "Dynamic" estimate assumes that the return on investment and WACC vary over time. The investment portfolio is assumed to be reinvested at future forecasted yields as securities mature, and WACC varies to reflect future expected costs of equity and debt. The starting point for the Dynamic estimates is January 1, 2018.

Two key input drivers of the results are the WACC and the RoI. Additional details on the calculation of these can be found in Appendix A1 and Appendix A2, respectively.

- The WACC used for the Static estimate increased relative to last year's value. The WACC vector used for the Dynamic estimate decreased relative to last year's values. An increase (decrease) in the WACC increases (decreases) the indicated P&C provision.
- The RoI used for the Static estimate increased relative to last year's value. There was little change in the dynamic RoI from last year to this year. An increase (decrease) in the RoI decreases (increases) the indicated P&C provision.
- The increases in the WACC and RoI for the Static estimate reflect higher nominal yields across fixed income asset classes during the first quarter of this year as compared to the same period last year. The increase in the WACC for the Static estimate is partially offset by the reduction in the beta for Property/Casualty Insurers from 0.92 to 0.86. For the Dynamic estimate, the decrease in the WACC is due largely to the reduction in the beta for Property/Casualty Insurers.

The following table summarizes the inputs and results of the model under these two scenarios.

**TABLE 1: IRR MODEL INPUTS AND RESULTS**

<b><u>Inputs:</u></b>			
(1)	Expenses and Taxes as a Percentage of Net Premium at NCCI Level . . . . .	19.00%	
(2)	Reserve-to-Surplus Ratio . . . . .	1.87	
(3)	Cash Flow Patterns . . . . .	See Table 2	
		<b><u>Static</u></b>	<b><u>Dynamic*</u></b>
(4)	Return on Investments . . . . .	2.38%	2.74% - 4.00%
(5)	Weighted Average Cost of Capital . . . . .	7.28%	7.70% - 9.22%
<b><u>Results</u></b>			
		<b><u>Static</u></b>	<b><u>Dynamic</u></b>
(6)	<b>Indicated Profit and Contingency Provision . . . . .</b>	<b>2.32%</b>	<b>1.77%</b>
(7)	Loss and Loss Adjustment Expense Provision [100% - (6) - (1)] . . . . .	78.68%	79.23%

**Table Notes:**

It is assumed that no policyholders dividends are paid and that there are no rate departures (deviations or schedule rating).

(1) Expense provisions and taxes derived from the filing.

(2) Calculated from Best's 2016 Aggregates & Averages, for Commercial Casualty Composite, as the weighted average of Loss, LAE, and Unearned Premium Reserves to Policyholder Surplus, for years 2011 - 2015.

\* See Table 3 for details by time period.



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**TABLE 2: CASH FLOW PATTERNS (CUMULATIVE)**

Time	(1) Policy-Year Collected Premium	(2) Earned Premium	(3) Written Premium	(4) Expenses and Taxes	(5) Paid Losses and LAE
0.00	-	-	-	-	-
0.25	14.52%	3.86%	30.90%	14.52%	1.28%
0.50	31.32%	14.54%	54.50%	31.32%	4.83%
0.75	53.34%	31.09%	77.90%	53.34%	10.32%
1.00	76.69%	53.33%	100.00%	76.69%	17.70%
1.25	89.23%	74.46%		89.23%	29.15%
1.50	96.99%	88.79%		96.99%	40.60%
1.75	100.00%	97.24%		100.00%	52.05%
2.00		100.00%			63.50%
2.25					67.98%
2.50					72.45%
2.75					76.93%
3.00					81.40%
3.25					83.10%
3.50					84.80%
3.75					86.50%
4.00					88.20%
4.25					89.10%
4.50					90.00%
4.75					90.90%
5.00					91.80%
6.00					93.60%
7.00					95.00%
8.00					95.60%
9.00					95.90%
10.00					96.60%
11.00					97.20%
12.00					97.40%
13.00					97.60%
14.00					97.70%
15.00					97.80%
16.00					98.00%
17.00					98.10%
18.00					98.30%
19.00					98.60%
20.00					98.80%
21.00					99.00%
22.00					99.10%
23.00					99.10%
24.00					99.20%
25.00					99.30%
26.00					99.40%
27.00					99.50%
28.00					99.50%
29.00					99.70%
30.00					99.80%
31.00					99.86%
32.00					99.91%
33.00					99.95%
34.00					99.98%
35.00					100.00%

**TABLE 3: DYNAMIC ESTIMATE  
INPUTS**

Time	(1) Return on Investments	(2) Weighted Average Cost of Capital
0.00	-	-
0.25	2.74%	7.70%
0.50	2.78%	8.03%
0.75	2.87%	8.21%
1.00	2.91%	8.47%
1.25	3.03%	8.76%
1.50	3.06%	8.99%
1.75	3.16%	9.15%
2.00	3.18%	9.27%
2.25	3.22%	9.30%
2.50	3.22%	9.29%
2.75	3.65%	9.23%
3.00	3.64%	9.14%
3.25	3.61%	9.04%
3.50	3.61%	9.01%
3.75	3.60%	9.06%
4.00	3.59%	9.05%
4.25	3.55%	8.99%
4.50	3.54%	8.93%
4.75	3.50%	8.82%
5.00	3.49%	8.74%
6.00	3.30%	8.73%
7.00	3.33%	8.78%
8.00	3.53%	8.93%
9.00	3.72%	9.12%
10.00	3.72%	9.09%
11.00	3.72%	9.08%
12.00	3.71%	9.08%
13.00	3.70%	9.09%
14.00	3.69%	9.09%
15.00	3.70%	9.10%
16.00	3.85%	9.11%
17.00	3.86%	9.13%
18.00	3.88%	9.15%
19.00	3.89%	9.17%
20.00	3.90%	9.18%
21.00	3.98%	9.20%
22.00	3.98%	9.21%
23.00	3.99%	9.22%
24.00	4.00%	9.22%
25.00	4.00%	9.22%
26.00	4.00%	9.22%
27.00	4.00%	9.22%
28.00	4.00%	9.22%
29.00	4.00%	9.22%
30.00	4.00%	9.22%
31.00	4.00%	9.22%
32.00	4.00%	9.22%
33.00	4.00%	9.22%
34.00	4.00%	9.22%
35.00	4.00%	9.22%

**Table 2 Notes:**

Table 2 shows cumulative cash flows. For ease of reading no additional numbers are shown after a column reaches 100% cumulative cash flow.

- (1) Derived from estimates of premium distribution and payment terms by size of policy.
- (2) Based on written premium pattern assuming uniform writings within quarters and standard quarterly earning pattern.
- (3) Based on this jurisdiction's premium writings by quarter.
- (4) Expenses assumed paid as premium is collected; timing of taxes based on NCCI's Tax and Assessment Directory.
- (5) Derived from loss development data underlying this rate filing. Payouts for the first 30 years are based upon the ratio of paid losses to incurred losses from the most recent 30 policy years for which data is available. For the following years, loss payouts are assumed to trail off geometrically, with an adjustment so that the payout will be complete at 35 years.





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**Calculation Details**

The tables in the following pages show the detailed calculations of the IRR model.

List of Tables

Static Estimate

Table 4: Derivation of Insurance Cash Flows

Table 5: Derivation of Cash Flows to the Capital Providers

Dynamic Estimate

Table 6: Derivation of Insurance Cash Flows

Table 7: Derivation of Cash Flows to the Capital Providers

Appendices

Appendix A: Calculation of Weighted Average Cost of Capital and Return on Investments

Table A.1: Calculation of Weighted Average Cost of Capital

Table A.2: Calculation of Return on Investments

Appendix B: Federal Income Tax Incurred from Insurance Operations

Table B.1: Federal Income Tax Calculation (Static Estimate)

Table B.2: Federal Income Tax Calculation (Dynamic Estimate)

Appendix C: Reserve-to-Surplus Ratio

Note: Although values are displayed to 4 decimal places in the following tables, the calculations themselves are carried to the full precision of the computer.



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**Calculation Details - Static Estimate**

**TABLE 4: DERIVATION OF INSURANCE CASH FLOW (STATIC ESTIMATE)**

Time	(1) Collected Premium Factor	(2) Expense and Taxes Factor	(3) Paid Losses and LAE Factor	(4) Federal Income Tax Factor	(5) Insurance Cash flow Factor
0.00	-	-	-	-	-
0.25	0.1452	0.0276	0.0101	0.0093	0.0983
0.50	0.3132	0.0595	0.0380	0.0185	0.1972
0.75	0.5334	0.1014	0.0812	0.0278	0.3231
1.00	0.7669	0.1457	0.1393	0.0370	0.4449
1.25	0.8923	0.1695	0.2293	0.0317	0.4617
1.50	0.9699	0.1843	0.3194	0.0264	0.4398
1.75	1.0000	0.1900	0.4095	0.0210	0.3795
2.00	1.0000	0.1900	0.4996	0.0157	0.2947
2.25	1.0000	0.1900	0.5348	0.0149	0.2603
2.50	1.0000	0.1900	0.5700	0.0141	0.2259
2.75	1.0000	0.1900	0.6052	0.0133	0.1915
3.00	1.0000	0.1900	0.6404	0.0125	0.1571
3.25	1.0000	0.1900	0.6538	0.0122	0.1440
3.50	1.0000	0.1900	0.6672	0.0118	0.1310
3.75	1.0000	0.1900	0.6805	0.0115	0.1180
4.00	1.0000	0.1900	0.6939	0.0111	0.1050
4.25	1.0000	0.1900	0.7010	0.0109	0.0981
4.50	1.0000	0.1900	0.7081	0.0107	0.0913
4.75	1.0000	0.1900	0.7152	0.0105	0.0844
5.00	1.0000	0.1900	0.7222	0.0102	0.0775
6.00	1.0000	0.1900	0.7364	0.0098	0.0638
7.00	1.0000	0.1900	0.7474	0.0094	0.0532
8.00	1.0000	0.1900	0.7521	0.0092	0.0487
9.00	1.0000	0.1900	0.7545	0.0090	0.0465
10.00	1.0000	0.1900	0.7600	0.0088	0.0412
11.00	1.0000	0.1900	0.7647	0.0086	0.0367
12.00	1.0000	0.1900	0.7663	0.0085	0.0352
13.00	1.0000	0.1900	0.7679	0.0084	0.0337
14.00	1.0000	0.1900	0.7687	0.0083	0.0330
15.00	1.0000	0.1900	0.7694	0.0082	0.0323
16.00	1.0000	0.1900	0.7710	0.0082	0.0308
17.00	1.0000	0.1900	0.7718	0.0082	0.0300
18.00	1.0000	0.1900	0.7734	0.0082	0.0284
19.00	1.0000	0.1900	0.7757	0.0082	0.0261
20.00	1.0000	0.1900	0.7773	0.0082	0.0245
21.00	1.0000	0.1900	0.7789	0.0082	0.0230
22.00	1.0000	0.1900	0.7797	0.0082	0.0222
23.00	1.0000	0.1900	0.7797	0.0082	0.0222
24.00	1.0000	0.1900	0.7805	0.0082	0.0214
25.00	1.0000	0.1900	0.7812	0.0082	0.0206
26.00	1.0000	0.1900	0.7820	0.0081	0.0198
27.00	1.0000	0.1900	0.7828	0.0081	0.0190
28.00	1.0000	0.1900	0.7828	0.0081	0.0190
29.00	1.0000	0.1900	0.7844	0.0081	0.0175
30.00	1.0000	0.1900	0.7852	0.0081	0.0167
31.00	1.0000	0.1900	0.7857	0.0081	0.0162
32.00	1.0000	0.1900	0.7861	0.0081	0.0158
33.00	1.0000	0.1900	0.7864	0.0081	0.0155
34.00	1.0000	0.1900	0.7866	0.0081	0.0153
35.00	1.0000	0.1900	0.7868	0.0081	0.0151

**Column Notes:**

- (1) is Collected Premium by time period, expressed as a factor, = Table 2 col (1)
- (2) is Expenses and Taxes by time period, expressed as a factor, = Table 1 row (1) x Table (2) col (4)
- (3) is Paid Losses and LAE by time period, expressed as a factor, = Table 1 row (7, Static) x Table (2) col (5)
- (4) per the Tax Reform Act of 1986, federal income taxes are computed as the tax rate (35%) times the adjusted underwriting income calculated per IRS rules. See Appendix B for details.
- (5) is the Total Insurance Cash Flow by time period, expressed as a factor, = (1) - [(2) + (3) + (4)]



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**Calculation Details - Static Estimate (continued)**

**TABLE 5: DERIVATION OF CASH FLOWS TO THE CAPITAL PROVIDERS (STATIC ESTIMATE)**

Time	(1) Unearned Premium, Unpaid Loss and Unpaid LAE Reserve Factor	(2) Factor for Surplus Allocated to Reserves	(3) Total Invested Funds Factor	(4) Income from Invested Funds Factor	(5) Capital Provider Equity Factor	(6) Capital Provider Cash Flow Factor	(7) Discounted Capital Provider Cash Flow Factor
0.00	-	-	-	-	-	-	-
0.25	0.2907	0.1554	0.2823	0.0008	(0.1832)	(0.1832)	(0.1816)
0.50	0.4760	0.2546	0.4988	0.0031	(0.2985)	(0.1152)	(0.1122)
0.75	0.6315	0.3377	0.7237	0.0067	(0.3938)	(0.0954)	(0.0913)
1.00	0.7470	0.3995	0.9134	0.0115	(0.4570)	(0.0631)	(0.0594)
1.25	0.6119	0.3272	0.8314	0.0167	(0.3530)	0.1040	0.0961
1.50	0.4912	0.2627	0.7238	0.0213	(0.2627)	0.0902	0.0819
1.75	0.3831	0.2049	0.5880	0.0251	(0.1834)	0.0793	0.0707
2.00	0.2872	0.1536	0.4407	0.0281	(0.1179)	0.0656	0.0575
2.25	0.2520	0.1347	0.3867	0.0306	(0.0958)	0.0221	0.0190
2.50	0.2168	0.1159	0.3327	0.0327	(0.0741)	0.0217	0.0184
2.75	0.1815	0.0971	0.2786	0.0345	(0.0527)	0.0214	0.0178
3.00	0.1463	0.0783	0.2246	0.0360	(0.0316)	0.0211	0.0172
3.25	0.1330	0.0711	0.2041	0.0372	(0.0228)	0.0088	0.0070
3.50	0.1196	0.0640	0.1835	0.0384	(0.0141)	0.0087	0.0068
3.75	0.1062	0.0568	0.1630	0.0394	(0.0056)	0.0085	0.0066
4.00	0.0928	0.0496	0.1425	0.0403	0.0028	0.0084	0.0064
4.25	0.0858	0.0459	0.1316	0.0411	0.0076	0.0048	0.0036
4.50	0.0787	0.0421	0.1207	0.0419	0.0124	0.0047	0.0035
4.75	0.0716	0.0383	0.1099	0.0425	0.0170	0.0047	0.0034
5.00	0.0645	0.0345	0.0990	0.0431	0.0217	0.0046	0.0033
6.00	0.0504	0.0269	0.0773	0.0452	0.0318	0.0101	0.0069
7.00	0.0393	0.0210	0.0604	0.0469	0.0397	0.0079	0.0050
8.00	0.0346	0.0185	0.0531	0.0482	0.0438	0.0041	0.0024
9.00	0.0323	0.0172	0.0495	0.0494	0.0464	0.0026	0.0014
10.00	0.0267	0.0143	0.0411	0.0505	0.0506	0.0042	0.0022
11.00	0.0220	0.0118	0.0338	0.0514	0.0543	0.0036	0.0017
12.00	0.0205	0.0109	0.0314	0.0522	0.0560	0.0017	0.0008
13.00	0.0189	0.0101	0.0290	0.0529	0.0576	0.0017	0.0007
14.00	0.0181	0.0097	0.0278	0.0536	0.0588	0.0012	0.0005
15.00	0.0173	0.0093	0.0266	0.0542	0.0600	0.0012	0.0004
16.00	0.0157	0.0084	0.0241	0.0548	0.0615	0.0015	0.0005
17.00	0.0149	0.0080	0.0229	0.0554	0.0625	0.0010	0.0003
18.00	0.0134	0.0072	0.0205	0.0559	0.0638	0.0014	0.0004
19.00	0.0110	0.0059	0.0169	0.0563	0.0655	0.0017	0.0005
20.00	0.0094	0.0050	0.0145	0.0567	0.0668	0.0012	0.0003
21.00	0.0079	0.0042	0.0121	0.0570	0.0679	0.0012	0.0003
22.00	0.0071	0.0038	0.0109	0.0573	0.0686	0.0007	0.0002
23.00	0.0071	0.0038	0.0109	0.0576	0.0689	0.0003	0.0001
24.00	0.0063	0.0034	0.0097	0.0578	0.0695	0.0007	0.0001
25.00	0.0055	0.0029	0.0085	0.0580	0.0702	0.0006	0.0001
26.00	0.0047	0.0025	0.0072	0.0582	0.0708	0.0006	0.0001
27.00	0.0039	0.0021	0.0060	0.0584	0.0714	0.0006	0.0001
28.00	0.0039	0.0021	0.0060	0.0585	0.0715	0.0001	0.0000
29.00	0.0024	0.0013	0.0036	0.0586	0.0725	0.0010	0.0001
30.00	0.0016	0.0008	0.0024	0.0587	0.0730	0.0005	0.0001
31.00	0.0011	0.0006	0.0016	0.0587	0.0733	0.0003	0.0000
32.00	0.0007	0.0004	0.0010	0.0588	0.0735	0.0002	0.0000
33.00	0.0004	0.0002	0.0006	0.0588	0.0737	0.0002	0.0000
34.00	0.0002	0.0001	0.0003	0.0588	0.0738	0.0001	0.0000
35.00	-	-	-	0.0588	0.0739	0.0001	0.0000

**Column Notes:**

- (1) is Unearned Premium Reserve (equal to Written Premium minus Earned Premium, per the cashflow pattern) plus Unpaid Loss and LAE Reserve (equal to Incurred minus Paid Losses and LAE) by time period, expressed as a factor,  
= [Table 2 col (3) - Table 2 col (2)] + Table 1 row (7, Static) x [Table 2 col (2) - Table 2 col (5)]
- (2) is the Surplus derived from Reserves per the Reserve-to-Surplus Ratio by time period, expressed as a factor, = (1) / Table 1 row (2)
- (3) is Reserves plus Surplus minus Agent Balances by time period, expressed as a factor, = (1) + (2) - Agent Balances. Agent Balances exist when Written Premium exceeds Collected Premium, = [Table 2 col (3) - Table 2 col (1)].
- (4) is derived by applying the Return on Investments [Table 1 row (4, Static)] to the average Invested Funds (4) from the previous and current time periods, plus previous Income from Invested Funds, by time period expressed as a factor.
- (5) is Insurance Cash Flow plus Income from Invested Funds minus Total Invested Funds by time period, expressed as a factor,  
= Table 4 col (5) + (4) - (3)
- (6) is the difference between Capital Provider Equity (5) at the current and previous time periods, expressed as a factor
- (7) is the Capital Provider Cash Flow (6) discounted by the Weighted Average Cost of Capital [Table 1 row (5, Static)], expressed as a factor



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**Calculation Details - Dynamic Estimate**

**TABLE 6: DERIVATION OF INSURANCE CASH FLOW (DYNAMIC ESTIMATE)**

Time	(1) Collected Premium Factor	(2) Expense and Taxes Factor	(3) Paid Losses and LAE Factor	(4) Federal Income Tax Factor	(5) Insurance Cash flow Factor
0.00	-	-	-	-	-
0.25	0.1452	0.0276	0.0102	0.0090	0.0984
0.50	0.3132	0.0595	0.0382	0.0181	0.1974
0.75	0.5334	0.1014	0.0818	0.0271	0.3232
1.00	0.7669	0.1457	0.1402	0.0361	0.4448
1.25	0.8923	0.1695	0.2309	0.0305	0.4613
1.50	0.9699	0.1843	0.3217	0.0250	0.4390
1.75	1.0000	0.1900	0.4124	0.0194	0.3782
2.00	1.0000	0.1900	0.5031	0.0138	0.2931
2.25	1.0000	0.1900	0.5385	0.0130	0.2584
2.50	1.0000	0.1900	0.5740	0.0122	0.2238
2.75	1.0000	0.1900	0.6095	0.0114	0.1891
3.00	1.0000	0.1900	0.6449	0.0106	0.1545
3.25	1.0000	0.1900	0.6584	0.0103	0.1414
3.50	1.0000	0.1900	0.6718	0.0099	0.1283
3.75	1.0000	0.1900	0.6853	0.0095	0.1151
4.00	1.0000	0.1900	0.6988	0.0092	0.1020
4.25	1.0000	0.1900	0.7059	0.0090	0.0951
4.50	1.0000	0.1900	0.7130	0.0088	0.0882
4.75	1.0000	0.1900	0.7202	0.0085	0.0813
5.00	1.0000	0.1900	0.7273	0.0083	0.0744
6.00	1.0000	0.1900	0.7416	0.0079	0.0605
7.00	1.0000	0.1900	0.7527	0.0075	0.0498
8.00	1.0000	0.1900	0.7574	0.0073	0.0453
9.00	1.0000	0.1900	0.7598	0.0071	0.0431
10.00	1.0000	0.1900	0.7653	0.0069	0.0378
11.00	1.0000	0.1900	0.7701	0.0067	0.0332
12.00	1.0000	0.1900	0.7717	0.0066	0.0318
13.00	1.0000	0.1900	0.7733	0.0065	0.0303
14.00	1.0000	0.1900	0.7740	0.0064	0.0296
15.00	1.0000	0.1900	0.7748	0.0063	0.0289
16.00	1.0000	0.1900	0.7764	0.0062	0.0273
17.00	1.0000	0.1900	0.7772	0.0062	0.0265
18.00	1.0000	0.1900	0.7788	0.0062	0.0250
19.00	1.0000	0.1900	0.7812	0.0062	0.0226
20.00	1.0000	0.1900	0.7828	0.0062	0.0210
21.00	1.0000	0.1900	0.7843	0.0062	0.0194
22.00	1.0000	0.1900	0.7851	0.0062	0.0186
23.00	1.0000	0.1900	0.7851	0.0062	0.0186
24.00	1.0000	0.1900	0.7859	0.0062	0.0178
25.00	1.0000	0.1900	0.7867	0.0062	0.0171
26.00	1.0000	0.1900	0.7875	0.0062	0.0163
27.00	1.0000	0.1900	0.7883	0.0062	0.0155
28.00	1.0000	0.1900	0.7883	0.0062	0.0155
29.00	1.0000	0.1900	0.7899	0.0062	0.0139
30.00	1.0000	0.1900	0.7907	0.0062	0.0131
31.00	1.0000	0.1900	0.7912	0.0062	0.0126
32.00	1.0000	0.1900	0.7916	0.0062	0.0122
33.00	1.0000	0.1900	0.7919	0.0062	0.0119
34.00	1.0000	0.1900	0.7921	0.0062	0.0117
35.00	1.0000	0.1900	0.7923	0.0062	0.0115

**Column Notes:**

- (1) is Collected Premium by time period, expressed as a factor, = Table 2 col (1)
- (2) is Expenses and Taxes by time period, expressed as a factor, = Table 1 row (1) x Table (2) col (4)
- (3) is Paid Losses and LAE by time period, expressed as a factor, = Table 1 row (7, Dynamic) x Table (2) col (5)
- (4) per the Tax Reform Act of 1986, federal income taxes are computed as the tax rate (35%) times the adjusted underwriting income calculated per IRS rules. See Appendix B for details.
- (5) is the Total Insurance Cash Flow by time period, expressed as a factor, = (1) - [(2) + (3) + (4)]



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**Calculation Details - Dynamic Estimate (continued)**

**TABLE 7: DERIVATION OF CASH FLOWS TO THE CAPITAL PROVIDERS (DYNAMIC ESTIMATE)**

Time	(1) Unearned Premium, Unpaid Loss and Unpaid LAE Reserve Factor	(2) Factor for Surplus Allocated to Reserves	(3) Total Invested Funds Factor	(4) Income from Invested Funds Factor	(5) Capital Provider Equity Factor	(6) Capital Provider Cash Flow Factor	(7) Cumulative Discount Factor	(8) Discounted Capital Provider Cash Flow Factor
0.00	-	-	-	-	-	-	-	-
0.25	0.2908	0.1555	0.2825	0.0010	(0.1832)	(0.1832)	0.9908	(0.1815)
0.50	0.4766	0.2549	0.4996	0.0037	(0.2986)	(0.1154)	0.9718	(0.1122)
0.75	0.6327	0.3383	0.7254	0.0080	(0.3942)	(0.0956)	0.9529	(0.0911)
1.00	0.7490	0.4005	0.9164	0.0139	(0.4577)	(0.0635)	0.9337	(0.0593)
1.25	0.6144	0.3285	0.8352	0.0204	(0.3535)	0.1042	0.9143	0.0953
1.50	0.4939	0.2641	0.7279	0.0264	(0.2626)	0.0909	0.8948	0.0814
1.75	0.3856	0.2062	0.5919	0.0315	(0.1821)	0.0804	0.8754	0.0704
2.00	0.2892	0.1546	0.4438	0.0356	(0.1151)	0.0670	0.8563	0.0573
2.25	0.2537	0.1357	0.3894	0.0389	(0.0921)	0.0231	0.8374	0.0193
2.50	0.2183	0.1167	0.3350	0.0418	(0.0694)	0.0226	0.8191	0.0185
2.75	0.1828	0.0978	0.2806	0.0445	(0.0469)	0.0225	0.8012	0.0180
3.00	0.1474	0.0788	0.2262	0.0468	(0.0249)	0.0220	0.7838	0.0173
3.25	0.1339	0.0716	0.2055	0.0487	(0.0154)	0.0095	0.7671	0.0073
3.50	0.1204	0.0644	0.1848	0.0505	(0.0061)	0.0093	0.7507	0.0070
3.75	0.1070	0.0572	0.1642	0.0520	0.0030	0.0091	0.7346	0.0067
4.00	0.0935	0.0500	0.1435	0.0534	0.0119	0.0089	0.7189	0.0064
4.25	0.0864	0.0462	0.1325	0.0546	0.0172	0.0052	0.7035	0.0037
4.50	0.0792	0.0424	0.1216	0.0557	0.0223	0.0051	0.6887	0.0035
4.75	0.0721	0.0386	0.1107	0.0567	0.0273	0.0050	0.6743	0.0034
5.00	0.0650	0.0347	0.0997	0.0576	0.0323	0.0049	0.6603	0.0033
6.00	0.0507	0.0271	0.0778	0.0605	0.0433	0.0110	0.6266	0.0069
7.00	0.0396	0.0212	0.0608	0.0629	0.0519	0.0086	0.5760	0.0050
8.00	0.0349	0.0186	0.0535	0.0649	0.0567	0.0048	0.5288	0.0025
9.00	0.0325	0.0174	0.0499	0.0668	0.0600	0.0033	0.4846	0.0016
10.00	0.0269	0.0144	0.0413	0.0685	0.0649	0.0049	0.4442	0.0022
11.00	0.0222	0.0119	0.0340	0.0699	0.0691	0.0041	0.4072	0.0017
12.00	0.0206	0.0110	0.0316	0.0711	0.0712	0.0022	0.3734	0.0008
13.00	0.0190	0.0102	0.0292	0.0722	0.0733	0.0021	0.3423	0.0007
14.00	0.0182	0.0097	0.0280	0.0733	0.0749	0.0016	0.3137	0.0005
15.00	0.0174	0.0093	0.0268	0.0743	0.0764	0.0015	0.2876	0.0004
16.00	0.0158	0.0085	0.0243	0.0753	0.0783	0.0019	0.2636	0.0005
17.00	0.0151	0.0080	0.0231	0.0762	0.0796	0.0013	0.2415	0.0003
18.00	0.0135	0.0072	0.0207	0.0770	0.0813	0.0017	0.2213	0.0004
19.00	0.0111	0.0059	0.0170	0.0778	0.0833	0.0020	0.2027	0.0004
20.00	0.0095	0.0051	0.0146	0.0784	0.0848	0.0015	0.1856	0.0003
21.00	0.0079	0.0042	0.0122	0.0789	0.0862	0.0014	0.1700	0.0002
22.00	0.0071	0.0038	0.0109	0.0794	0.0871	0.0009	0.1557	0.0001
23.00	0.0071	0.0038	0.0109	0.0798	0.0875	0.0004	0.1425	0.0001
24.00	0.0063	0.0034	0.0097	0.0802	0.0884	0.0008	0.1305	0.0001
25.00	0.0055	0.0030	0.0085	0.0806	0.0892	0.0008	0.1195	0.0001
26.00	0.0048	0.0025	0.0073	0.0809	0.0899	0.0007	0.1094	0.0001
27.00	0.0040	0.0021	0.0061	0.0812	0.0906	0.0007	0.1002	0.0001
28.00	0.0040	0.0021	0.0061	0.0814	0.0908	0.0002	0.0917	0.0000
29.00	0.0024	0.0013	0.0036	0.0816	0.0919	0.0010	0.0840	0.0001
30.00	0.0016	0.0008	0.0024	0.0818	0.0924	0.0005	0.0769	0.0000
31.00	0.0011	0.0006	0.0016	0.0818	0.0928	0.0004	0.0704	0.0000
32.00	0.0007	0.0004	0.0010	0.0819	0.0930	0.0003	0.0645	0.0000
33.00	0.0004	0.0002	0.0006	0.0819	0.0932	0.0002	0.0590	0.0000
34.00	0.0002	0.0001	0.0003	0.0819	0.0934	0.0001	0.0540	0.0000
35.00	-	-	-	0.0819	0.0935	0.0001	0.0495	0.0000

**Column Notes:**

- (1) is Unearned Premium Reserve (equal to Written Premium minus Earned Premium, per the cashflow pattern) plus Unpaid Loss and LAE Reserve (equal to Incurred minus Paid Losses and LAE) by time period, expressed as a factor,  
= [Table 2 col (3) - Table 2 col (2)] + Table 1 row (7, Dynamic) x [Table 2 col (2) - Table 2 col (5)]
- (2) is the Surplus derived from Reserves per the Reserve-to-Surplus Ratio by time period, expressed as a factor, = (1) / Table 1 row (2)
- (3) is Reserves plus Surplus minus Agent Balances by time period, expressed as a factor, = (1) + (2) - Agent Balances. Agent Balances exist when Written Premium exceeds Collected Premium, = [Table 2 col (3) - Table 2 col (1)].
- (4) is derived by applying the Return on Investments [Table 3 col (1)] to the average Invested Funds (4) from the previous and current time periods, plus previous Income from Invested Funds, by time period expressed as a factor.
- (5) is Insurance Cash Flow plus Income from Invested Funds minus Total Invested Funds by time period, expressed as a factor,  
= Table 6 col (5) + (4) - (3)
- (6) is the difference between Capital Provider Equity (5) at the current and previous time periods, expressed as a factor
- (7) is derived from the respective Weighted Average Cost of Capital [Table 3 col (2)] for each time period, expressed as a factor
- (8) is the Capital Provider Cash Flow (6) discounted by the Cumulative Discount Factor (7), expressed as a factor



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**APPENDIX A: CALCULATION OF WEIGHTED AVERAGE COST OF CAPITAL AND RETURN ON INVESTMENTS**

The calculation of the Weighted Average Cost of Capital (WACC) is shown in Table A.1, and the calculation of the Return on Investments (RoI) is shown in Table A.2. The calculation for the Static estimate is shown in each. Calculations of the WACC and RoI under the Dynamic estimate for time periods 1, 2, and 5 are also provided for illustrative purposes. Note that the IRR model under the Dynamic estimate includes estimates of the WACC and RoI on a quarterly basis for the first five years and annually thereafter.

**TABLE A.1: CALCULATION OF WEIGHTED AVERAGE COST OF CAPITAL**

	<b>Static</b>	<b>IRR Model Time (yrs)</b>		
		<b>1.00</b>	<b>2.00</b>	<b>5.00</b>
(1) 5 year US T-note Yield	1.95%	3.22%	4.07%	3.50%
(2) US Equity Market Risk Premium	7.51%			
(3) Beta for Property/Casualty (P/C) Insurers	0.86			
(4) Equity Cost of Capital for P/C Insurers	8.41%	9.68%	10.53%	9.96%
(5) Share of Equity Capital for P/C Insurers	82%			
(6) Debt Cost of Capital for P/C Insurers	2.13%	2.96%	3.52%	3.14%
(7) Weighted Average Cost of Capital (WACC)	7.28%	8.47%	9.27%	8.74%

**Column Notes:**

- (1) Forward estimates of the 5-year US T-note yield are from Moody's forecasts and apply only to the Dynamic estimate of the WACC. Time periods provided are illustrative; the full model includes estimates on a quarterly basis for the first five years and annually thereafter.
- (3) & (5) P/C beta and share of equity capital are estimated from historical data for a collection of insurers with publicly traded equity and debt.
- (4) = (1) + (2) x (3)
- (6) P/C debt cost of capital is the sum of the 5-year US T-note yield plus the historical corporate spread, net of income tax.
- (7) = (4) x (5) + (6) x [1 - (5)]



APPENDIX A: CALCULATION OF WEIGHTED AVERAGE COST OF CAPITAL AND RETURN ON INVESTMENTS (CONTINUED)

TABLE A.2 CALCULATION OF RETURN ON INVESTMENTS

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Security Description	Investment Portfolio	Yield Curve, Maturity and Spread	Roll-over Period	Income Tax Rate	Post-tax Return			
					IRR Model Time (yrs)			
					Static	1.00	2.00	5.00
Bonds, of which	73.8%							
Government Direct Obligations	6.8%							
< 1yr	1.9%	6 mo US T-bill	0.50 yrs	35.00%	0.47%	1.06%	2.12%	1.75%
1 – 5 yrs	2.9%	2.5 yr US T-note	2.50 yrs	35.00%	0.90%	1.10%	1.10%	2.52%
5 – 10 yrs	1.3%	7.5 yr US T-note	7.50 yrs	35.00%	1.49%	1.86%	1.86%	1.86%
10 – 20 yrs	0.3%	15 yr US T-note	15.00 yrs	35.00%	1.70%	2.23%	2.23%	2.23%
> 20 yrs	0.4%	20 yr US T-note	20.00 yrs	35.00%	1.81%	2.35%	2.35%	2.35%
Collateralized Securities	6.8%							
< 1yr	0.9%	6 mo US T-bill + 50 basis points	0.50 yrs	35.00%	0.79%	1.39%	2.44%	2.07%
1 – 5 yrs	2.6%	2.5 yr US T-note + 50 basis points	2.50 yrs	35.00%	1.22%	1.43%	1.43%	2.85%
5 – 10 yrs	1.8%	7.5 yr US T-note + 50 basis points	7.50 yrs	35.00%	1.81%	2.18%	2.18%	2.18%
10 – 20 yrs	1.1%	15 yr US T-note + 50 basis points	15.00 yrs	35.00%	2.02%	2.55%	2.55%	2.55%
> 20 yrs	0.4%	20 yr US T-note + 50 basis points	20.00 yrs	35.00%	2.13%	2.68%	2.68%	2.68%
Tax-exempt Bonds	25.5%							
< 1yr	2.2%	6 mo US T-bill + Tax-exempt spread	0.50 yrs	5.25%	0.81%	1.67%	3.21%	2.67%
1 – 5 yrs	6.3%	2.5 yr US T-note + Tax-exempt spread	2.50 yrs	5.25%	1.53%	1.82%	1.82%	3.90%
5 – 10 yrs	7.9%	7.5 yr US T-note + Tax-exempt spread	7.50 yrs	5.25%	2.41%	2.95%	2.95%	2.95%
10 – 20 yrs	6.7%	15 yr US T-note + Tax-exempt spread	15.00 yrs	5.25%	2.82%	3.58%	3.58%	3.58%
> 20 yrs	2.4%	20 yr US T-note + Tax-exempt spread	20.00 yrs	5.25%	3.04%	3.82%	3.82%	3.82%
Industrial and Hybrid Securities (unaffiliated)	33.3%							
< 1yr	4.4%	6 mo US T-bill + Corp spread	0.50 yrs	35.00%	0.95%	1.54%	2.60%	2.23%
1 – 5 yrs	13.3%	2.5 yr US T-note + Corp spread	2.50 yrs	35.00%	1.61%	1.82%	1.82%	3.25%
5 – 10 yrs	11.9%	7.5 yr US T-note + Corp spread	7.50 yrs	35.00%	2.41%	2.78%	2.78%	2.78%
10 – 20 yrs	1.5%	15 yr US T-note + Corp spread	15.00 yrs	35.00%	2.67%	3.19%	3.19%	3.19%
> 20 yrs	2.2%	20 yr US T-note + Corp spread	20.00 yrs	35.00%	2.80%	3.33%	3.33%	3.33%
Industrial and Hybrid Securities (affiliated)	1.5%							
< 1yr	1.5%	6 mo US T-bill + Corp spread	0.50 yrs	5.25%	1.38%	2.25%	3.79%	3.25%
1 – 5 yrs	0.0%	2.5 yr US T-note + Corp spread	2.50 yrs	5.25%	2.35%	2.65%	2.65%	4.74%
5 – 10 yrs	0.0%	7.5 yr US T-note + Corp spread	7.50 yrs	5.25%	3.52%	4.05%	4.05%	4.05%
10 – 20 yrs	0.0%	15 yr US T-note + Corp spread	15.00 yrs	5.25%	3.90%	4.65%	4.65%	4.65%
> 20 yrs	0.0%	20 yr US T-note + Corp spread	20.00 yrs	5.25%	4.09%	4.86%	4.86%	4.86%
Stocks, of which	12.4%							
Preferred Stock	0.4%	5 year US T-note + 376 basis points	0.25 yrs	14.18%	4.90%	5.99%	6.71%	6.23%
Common Stock	11.9%	5 year US T-note + 751 basis points	0.25 yrs	27.88%	6.82%	7.74%	8.35%	7.94%
Mortgage Loans	1.5%							
Real Estate	0.3%							
Cash & Short-Term Investment	3.8%	3 month US T-bill	0.25 yrs	35.00%	0.39%	1.26%	2.24%	1.67%
All Other Assets*	8.3%							
Post-Tax Return on Invested Funds, pre-Expense:					2.50%	3.03%	3.31%	3.62%
Investment Expense**:					-0.13%	-0.13%	-0.13%	-0.13%
Post-Tax Return on Invested Funds:					<b>2.38%</b>	<b>2.91%</b>	<b>3.18%</b>	<b>3.49%</b>

Table Notes:

- Government Direct Obligations include US Government Issuer Obligations and Non-US Government Issuer Obligations. Collateralized Securities include Mortgage Backed, Loan Backed, or Structured Securities. Tax-exempt Bonds include Issuer Obligations of US States, Territories, and Possessions, US Political Subdivisions of States, Territories, and Possessions, and US Special Revenue and Special Assessment Obligations. Industrial and Hybrid Securities (unaffiliated) include Industrial and Miscellaneous and Hybrid Securities. Industrial and Hybrid Securities (affiliated) include Parents, Subsidiaries, and Affiliates.
- Bond and total portfolio distributions are 3-year averages for 2013-2015, calculated from various annual editions of Best's Aggregates & Averages (Property-Casualty), Assets for Commercial Casualty Composite, p. 276, Column 3, Net Admitted Assets. For each year 2013-2015, the maturity distribution pertains to all bonds owned as of December 31 at book/adjusted carrying value for Commercial Casualty Composite, Schedule D, Part 1A, Section 2.
- Spread to US treasury yields are either constant or varying by maturity (tax-exempt or corporate) as applicable. The tax-exempt spread is a term structure of average historical spreads in forward rates at different maturities between US municipal bonds and US Treasuries. Data on historical yields to US municipal bonds are from Bloomberg. The corporate spread is a term structure of average historical spreads in forward rates at different maturities between US corporate bonds and US Treasuries. Historical data on yields to US corporate bonds are from the US Department of Treasury.
- Applies only to the Dynamic estimate of the return on invested funds. The roll-over period is the time interval at which the estimated yield is updated for the given security in the investment portfolio. For bonds, the roll-over period is the bond's term to maturity. Forward yields for common and preferred stocks are updated quarterly.
- It is assumed that investment returns, except dividends and tax exempt municipal bond income, are taxed at 35%. With respect to dividends, it is assumed that 70% of dividends received are tax exempt. It is further assumed that in accordance with the "pro-ration" provision, 15% of otherwise exempt municipal bond income and dividends are taxed at 35%. The portion of income attributable to capital appreciation is assumed to equal 65.8% while the income portion is 34.2%. The percentages were obtained from Morningstar's Analyst Research Center containing Table 6-7 previously published in Ibbotson SBBI Classic Yearbook, large company stocks, arithmetic mean.
- Static estimates of treasury yields are actual current yields.
- (7)-(9) Apply only to the Dynamic estimate of the return on invested funds. Forward estimates of treasury yields at various maturities are from Moody's.

\* Yields to mortgage loans, real estate, and all other assets are not directly estimated, but are assumed to be equal to the weighted average portfolio yield net of these categories.

\*\* Investment expense calculated from Annual Statement data for the Commercial Casualty Composite by dividing Total Investment Expense by Cash and Invested Assets.

Total investment expense for 2015 from the Annual Statement, Exhibit of Net Investment Income.

Average of 2014 and 2015 cash and invested assets from Best's Aggregates and Averages (Property-Casualty), Assets for Commercial Casualty Composite, p.276, Line 12.





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Exhibit II - G

APPENDIX B: FEDERAL INCOME TAX INCURRED FROM INSURANCE OPERATIONS

Federal taxes on underwriting income, based on the Tax Reform Act of 1986, are calculated in the following tables on an annual basis. Columns (1) through (4) are the same under both the Static and Dynamic Estimates; the paid losses and LAE factors (col (5)) vary by Estimate. Note that investment taxes are accounted for in Appendix A. Annual tax is prorated when quarterly amounts are required.

TABLE B.1: FEDERAL INCOME TAX CALCULATION (STATIC ESTIMATE)

Time	(1) Written Premium Factor	(2) Unearned Premium Factor	(3) Expense and Taxes Factor	(4) Discount Factor	(5) Paid Losses and LAE Factor	(6) AY1 Paid Losses and LAE Factor	(7) AY2 Paid Losses and LAE Factor	(8) Discounted AY1 Unpaid Losses & LAE Factor	(9) Discounted AY2 Unpaid Losses & LAE Factor	(10) Federal Income Tax Factor
0.00	-	-	-	-	-	-	-	-	-	-
1.00	1.0000	0.4668	0.1457	0.9280	0.1393	0.1393	-	0.2358	-	0.0370
2.00	1.0000	-	0.1900	0.9175	0.4996	0.3051	0.1945	0.0810	0.1845	0.0157
3.00	1.0000	-	0.1900	0.9102	0.6404	0.3278	0.3126	0.0597	0.0741	0.0125
4.00	1.0000	-	0.1900	0.9072	0.6939	0.3565	0.3374	0.0334	0.0510	0.0111
5.00	1.0000	-	0.1900	0.9062	0.7222	0.3634	0.3588	0.0272	0.0313	0.0102
6.00	1.0000	-	0.1900	0.9036	0.7364	0.3706	0.3658	0.0206	0.0250	0.0098
7.00	1.0000	-	0.1900	0.9098	0.7474	0.3753	0.3722	0.0165	0.0192	0.0094
8.00	1.0000	-	0.1900	0.9181	0.7521	0.3765	0.3757	0.0155	0.0161	0.0092
9.00	1.0000	-	0.1900	0.9230	0.7545	0.3776	0.3769	0.0145	0.0152	0.0090
10.00	1.0000	-	0.1900	0.9328	0.7600	0.3812	0.3788	0.0114	0.0134	0.0088
11.00	1.0000	-	0.1900	0.9431	0.7647	0.3830	0.3818	0.0098	0.0108	0.0086
12.00	1.0000	-	0.1900	0.9540	0.7663	0.3832	0.3831	0.0097	0.0097	0.0085
13.00	1.0000	-	0.1900	0.9657	0.7679	0.3843	0.3836	0.0088	0.0093	0.0084
14.00	1.0000	-	0.1900	0.9784	0.7687	0.3844	0.3843	0.0088	0.0088	0.0083
15.00	1.0000	-	0.1900	0.9923	0.7694	0.3849	0.3845	0.0084	0.0086	0.0082
16.00	1.0000	-	0.1900	0.9923	0.7710	0.3858	0.3852	0.0075	0.0081	0.0082
17.00	1.0000	-	0.1900	0.9923	0.7718	0.3859	0.3859	0.0074	0.0075	0.0082
18.00	1.0000	-	0.1900	0.9923	0.7734	0.3871	0.3863	0.0063	0.0070	0.0082
19.00	1.0000	-	0.1900	0.9923	0.7757	0.3883	0.3875	0.0051	0.0059	0.0082
20.00	1.0000	-	0.1900	0.9923	0.7773	0.3888	0.3885	0.0045	0.0049	0.0082
21.00	1.0000	-	0.1900	0.9923	0.7789	0.3897	0.3891	0.0036	0.0042	0.0082
22.00	1.0000	-	0.1900	0.9923	0.7797	0.3899	0.3898	0.0035	0.0036	0.0082
23.00	1.0000	-	0.1900	0.9923	0.7797	0.3898	0.3899	0.0035	0.0035	0.0082
24.00	1.0000	-	0.1900	0.9923	0.7805	0.3904	0.3900	0.0029	0.0033	0.0082
25.00	1.0000	-	0.1900	0.9923	0.7812	0.3907	0.3905	0.0026	0.0028	0.0082
26.00	1.0000	-	0.1900	0.9923	0.7820	0.3912	0.3909	0.0022	0.0025	0.0081
27.00	1.0000	-	0.1900	0.9923	0.7828	0.3915	0.3913	0.0018	0.0021	0.0081
28.00	1.0000	-	0.1900	0.9923	0.7828	0.3913	0.3915	0.0020	0.0019	0.0081
29.00	1.0000	-	0.1900	0.9923	0.7844	0.3926	0.3918	0.0008	0.0016	0.0081
30.00	1.0000	-	0.1900	0.9923	0.7852	0.3926	0.3926	0.0008	0.0008	0.0081
31.00	1.0000	-	0.1900	0.9923	0.7857	0.3930	0.3927	0.0004	0.0007	0.0081
32.00	1.0000	-	0.1900	0.9923	0.7861	0.3931	0.3930	0.0003	0.0004	0.0081
33.00	1.0000	-	0.1900	0.9923	0.7864	0.3932	0.3931	0.0001	0.0002	0.0081
34.00	1.0000	-	0.1900	0.9923	0.7866	0.3933	0.3933	0.0001	0.0001	0.0081
35.00	1.0000	-	0.1900	0.9923	0.7868	0.3934	0.3934	-	-	0.0081

Column Notes:

- (1) is Written Premium by time period, expressed as a factor, = Table 2 col (3)
- (2) is Written Premium minus Earned Premium by time period, expressed as a factor, = Table 2 col (3) - Table 2 col (2)
- (3) is Expenses and Taxes by time period, expressed as a factor, = Table 1 row (1) x Table (2) col (4)
- (4) is from Internal Revenue Bulletin 2016-51, Rev. Proc 2016-58, dated December 19, 2016
- (5) is Paid Losses and LAE by time period, expressed as a factor, = Table 1 row (7, Static) x Table (2) col (5)
- (6) and (7) split the payments between the accident year coincident with the policy year ("AY1"), and the following accident year ("AY2"). Assuming that the payout pattern is linear between integer times, and that the average accident date for AY2 is two-thirds of a year later than the average accident date for AY1, columns (6) and (7) are determined by solving these two equations simultaneously:  

$$\text{Col (6)} + \text{Col (7)} = \text{Col (5)}$$

$$\text{Col (7)} = (2/3) * \text{Col (6, previous row)} + (1/3) * \text{Col (6)}$$
 with Col (6, Time 1) = Col (5, Time 1) and Col (6, Time 35) = Col (7, Time 35)
- (8) is the discounted difference between AY1 Losses and LAE that will ultimately be paid, and the amount already paid,  

$$= [\text{col (6, Time 35)} - (6)] * (4)$$
- (9) is the discounted difference between AY2 Losses and LAE that will ultimately be paid, and the amount already paid,  

$$= [\text{col (7, Time 35)} - (7)] * \text{col (4, previous row)}$$
- (10) Per IRS rules, federal income tax equals the tax rate (35%) times the adjusted underwriting income  

$$= 35\% * \{ (1) - 0.8 * (2) - [(3) + (5) + (8) + (9)] \}$$





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APPENDIX B: FEDERAL INCOME TAX INCURRED FROM INSURANCE OPERATIONS (CONTINUED)

TABLE B.2: FEDERAL INCOME TAX CALCULATION (DYNAMIC ESTIMATE)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Time	Written Premium Factor	Unearned Premium Factor	Expense and Taxes Factor	Discount Factor	Paid Losses and LAE Factor	AY1 Paid Losses and LAE Factor	AY2 Paid Losses and LAE Factor	Discounted AY1 Unpaid Losses & LAE Factor	Discounted AY2 Unpaid Losses & LAE Factor	Federal Income Tax Factor
0.00	-	-	-	-	-	-	-	-	-	-
1.00	1.0000	0.4668	0.1457	0.9280	0.1402	0.1402	-	0.2375	-	0.0361
2.00	1.0000	-	0.1900	0.9175	0.5031	0.3072	0.1959	0.0816	0.1858	0.0138
3.00	1.0000	-	0.1900	0.9102	0.6449	0.3301	0.3148	0.0601	0.0746	0.0106
4.00	1.0000	-	0.1900	0.9072	0.6988	0.3590	0.3397	0.0336	0.0513	0.0092
5.00	1.0000	-	0.1900	0.9062	0.7273	0.3660	0.3613	0.0273	0.0316	0.0083
6.00	1.0000	-	0.1900	0.9036	0.7416	0.3732	0.3684	0.0207	0.0252	0.0079
7.00	1.0000	-	0.1900	0.9098	0.7527	0.3779	0.3748	0.0166	0.0193	0.0075
8.00	1.0000	-	0.1900	0.9181	0.7574	0.3791	0.3783	0.0156	0.0162	0.0073
9.00	1.0000	-	0.1900	0.9230	0.7598	0.3803	0.3795	0.0146	0.0153	0.0071
10.00	1.0000	-	0.1900	0.9328	0.7653	0.3839	0.3815	0.0115	0.0135	0.0069
11.00	1.0000	-	0.1900	0.9431	0.7701	0.3856	0.3844	0.0099	0.0109	0.0067
12.00	1.0000	-	0.1900	0.9540	0.7717	0.3859	0.3857	0.0097	0.0098	0.0066
13.00	1.0000	-	0.1900	0.9657	0.7733	0.3870	0.3863	0.0088	0.0094	0.0065
14.00	1.0000	-	0.1900	0.9784	0.7740	0.3870	0.3870	0.0089	0.0088	0.0064
15.00	1.0000	-	0.1900	0.9923	0.7748	0.3876	0.3872	0.0085	0.0087	0.0063
16.00	1.0000	-	0.1900	0.9923	0.7764	0.3885	0.3879	0.0076	0.0082	0.0062
17.00	1.0000	-	0.1900	0.9923	0.7772	0.3887	0.3886	0.0074	0.0075	0.0062
18.00	1.0000	-	0.1900	0.9923	0.7788	0.3898	0.3890	0.0063	0.0071	0.0062
19.00	1.0000	-	0.1900	0.9923	0.7812	0.3910	0.3902	0.0051	0.0059	0.0062
20.00	1.0000	-	0.1900	0.9923	0.7828	0.3916	0.3912	0.0045	0.0049	0.0062
21.00	1.0000	-	0.1900	0.9923	0.7843	0.3925	0.3919	0.0036	0.0042	0.0062
22.00	1.0000	-	0.1900	0.9923	0.7851	0.3926	0.3925	0.0035	0.0036	0.0062
23.00	1.0000	-	0.1900	0.9923	0.7851	0.3925	0.3926	0.0036	0.0035	0.0062
24.00	1.0000	-	0.1900	0.9923	0.7859	0.3932	0.3928	0.0029	0.0034	0.0062
25.00	1.0000	-	0.1900	0.9923	0.7867	0.3935	0.3933	0.0027	0.0028	0.0062
26.00	1.0000	-	0.1900	0.9923	0.7875	0.3939	0.3936	0.0022	0.0025	0.0062
27.00	1.0000	-	0.1900	0.9923	0.7883	0.3943	0.3940	0.0018	0.0021	0.0062
28.00	1.0000	-	0.1900	0.9923	0.7883	0.3941	0.3942	0.0020	0.0019	0.0062
29.00	1.0000	-	0.1900	0.9923	0.7899	0.3954	0.3945	0.0008	0.0016	0.0062
30.00	1.0000	-	0.1900	0.9923	0.7907	0.3953	0.3954	0.0008	0.0008	0.0062
31.00	1.0000	-	0.1900	0.9923	0.7912	0.3957	0.3955	0.0004	0.0007	0.0062
32.00	1.0000	-	0.1900	0.9923	0.7916	0.3958	0.3958	0.0003	0.0004	0.0062
33.00	1.0000	-	0.1900	0.9923	0.7919	0.3960	0.3959	0.0001	0.0003	0.0062
34.00	1.0000	-	0.1900	0.9923	0.7921	0.3961	0.3960	0.0001	0.0001	0.0062
35.00	1.0000	-	0.1900	0.9923	0.7923	0.3961	0.3961	-	-	0.0062

Column Notes:

- (1) is Written Premium by time period, expressed as a factor, = Table 2 col (3)  
 (2) is Written Premium minus Earned Premium by time period, expressed as a factor, = Table 2 col (3) - Table 2 col (2)  
 (3) is Expenses and Taxes by time period, expressed as a factor, = Table 1 row (1) x Table (2) col (4)  
 (4) is from Internal Revenue Bulletin 2016-51, Rev. Proc 2016-58, dated December 19, 2016  
 (5) is Paid Losses and LAE by time period, expressed as a factor, = Table 1 row (7, Dynamic) x Table (2) col (5)  
 (6) and (7) split the payments between the accident year coincident with the policy year ("AY1"), and the following accident year ("AY2"). Assuming that the payout pattern is linear between integer times, and that the average accident date for AY2 is two-thirds of a year later than the average accident date for AY1, columns (6) and (7) are determined by solving these two equations simultaneously:  
     Col (6) + Col (7) = Col (5)  
     Col (7) = (2/3) \* Col (6, previous row) + (1/3) \* Col (6)  
     with Col (6, Time 1) = Col (5, Time 1) and Col (6, Time 35) = Col (7, Time 35)  
 (8) is the discounted difference between AY1 Losses and LAE that will ultimately be paid, and the amount already paid,  
     = [col (6, Time 35) - (6)] x (4)  
 (9) is the discounted difference between AY2 Losses and LAE that will ultimately be paid, and the amount already paid,  
     = [col (7, Time 35) - (7)] x col (4, previous row)  
 (10) Per IRS rules, federal income tax equals the tax rate (35%) times the adjusted underwriting income  
     = 35% \* { (1) - 0.8 \* (2) - [(3) + (5) + (8) + (9)] }



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APPENDIX C: RESERVE-TO-SURPLUS RATIO  
in 000's

	(1)	(2)	(3)	(4)	(5)	(6)
Year End	Unpaid Losses	Unpaid Loss Adjustment Expense	Unearned Premium	Policyholder Surplus	Ratio excl. Unearned Premium $\{(1)+(2)\} / (4)$	Ratio incl. Unearned Premium $\{(1)+(2) + (3)\} / (4)$
2015	185,919,427	42,816,231	73,469,477	169,017,203	1.35	1.79
2014	214,239,981	48,564,685	83,674,315	192,947,461	1.36	1.80
2013	215,275,673	47,841,227	81,229,642	182,832,920	1.44	1.88
2012	212,275,479	46,533,070	75,723,720	174,892,306	1.48	1.91
2011	211,071,160	46,773,232	72,629,793	168,688,743	1.53	1.96
2011 - 2015	1,038,781,720	232,528,445	386,726,947	888,378,633	1.43	1.87

Selected Ratio including Unearned Premium: 1.87

Source: Columns (1) - (4) for the latest year are taken from Liabilities on page 277 in Best's 2016 Aggregates & Averages, for Commercial Casualty Composite.



## INDIANA

### EXHIBIT II

#### Section H - Table of Premium Discounts

<u>Division of Standard Premium</u>		<u>Type A Discounts</u>	<u>Type B Discounts</u>
First	\$10,000	---	---
Next	\$190,000	9.1%	5.1%
Next	\$1,550,000	11.3%	6.5%
Over	\$1,750,000	12.3%	7.5%

Application of the appropriate discount schedule to the standard premium produces a dollar discount that is subtracted from the standard premium.



# INDIANA

## EXHIBIT II

### Section I - Average Expense Provisions

Reproduced below are the graduated expense provisions by policy size.

#### Gradation of Standard Premium

Division of Premium		Expense Gradations		
		Production*	General	Discounts
First	\$10,000	18.3%	5.0%	---
Next	\$190,000	10.8%	4.0%	9.1%
Next	\$1,550,000	9.3%	3.4%	11.3%
Over	\$ 1,750,000	9.3%	2.5%	12.3%
Proposed Average:		11.5%	3.7%	
Proposed Average Expense Gradation: (Expense for 1st \$10,000 - Avg Expense)		6.8%	1.3%	

#### Average Premium Discount:

$$[Avg\ Exp\ Grad] / [1 - Taxes - P\&C] = [6.8\% + 1.3\%] / [1 - 1.6\% - 2.0\%] = 8.4\%$$

#### Composition of Standard Premium:

Benefit & Loss Adj. Cost	Production (18.3%)	General (5.0%)	Profit (2.0%)	Taxes (1.6%)	} Premium -- After Discounts (91.6%)	} Standard Premium -- Excluding Expense Constant (100.0%)
73.1%	11.5%	3.7%	1.8%	1.5%		
	6.8%	1.3%	0.2%	0.1%	} -- Discount (8.4%)	
	0.5%	0.4%	0.0%	0.0%	} -- Premium from \$160 expense constant. (.8% = 1/0.992 - 1)^	

#### Notes

\* The production expense gradations shown are based on Type A gradations.

^ The 0.992 offset is for the \$160 expense constant.

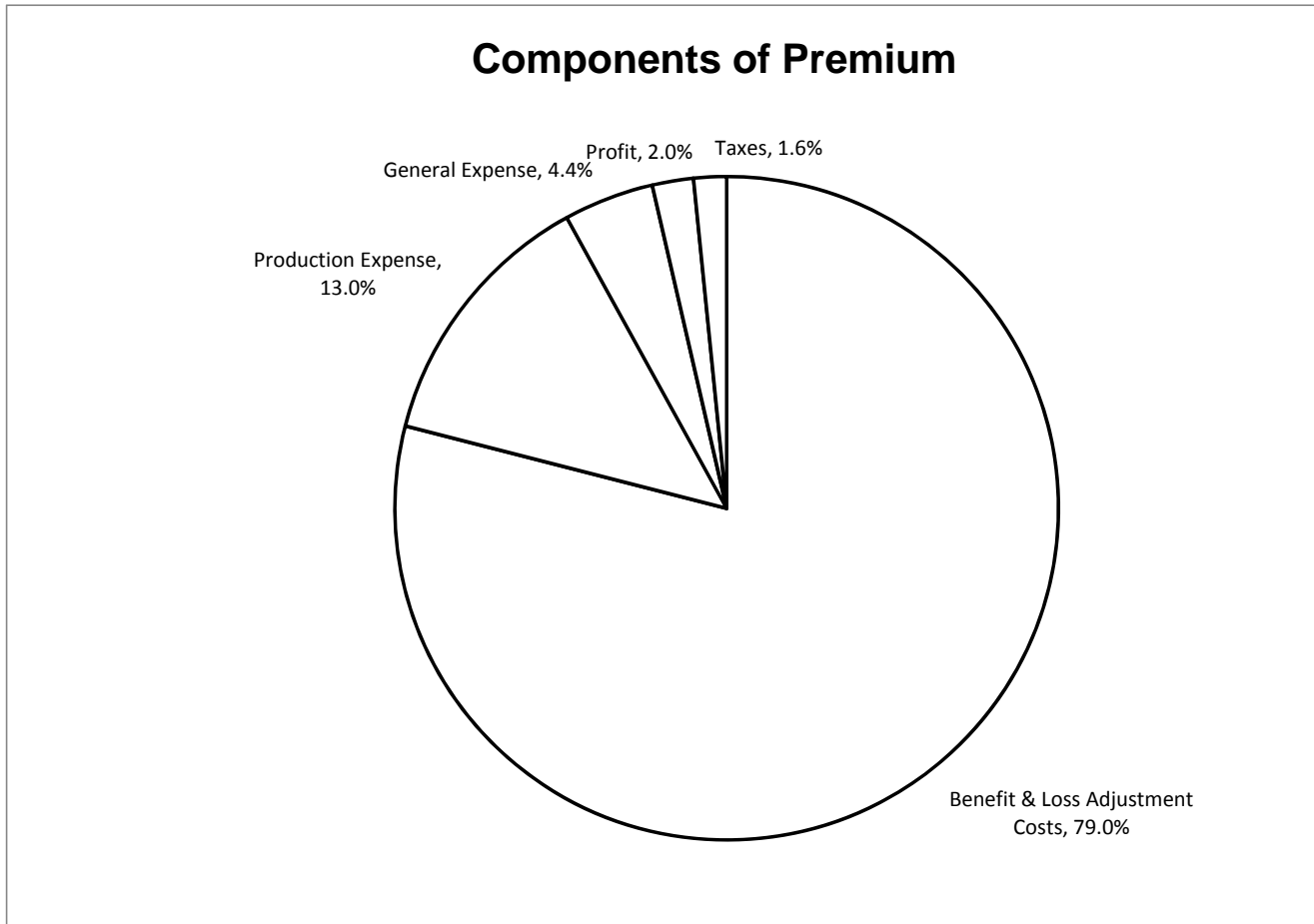


## INDIANA

### EXHIBIT II

#### Section J -Indiana Expense Provisions as a Percentage of Net Premium at NCCI Level

The exhibit below illustrates the allocation of the final premium dollar after the application of premium discounts and expense constants based on Indiana expense provisions.



#### Notes

Benefit & Loss Adjustment Costs	79.0% = (73.1%) / 92.5%
Production Expense	13.0% = (11.5% + 0.5%) / 92.5%
General Expense	4.4% = (3.7% + 0.4%) / 92.5%
Profit	2.0% = (1.8% + 0.0%) / 92.5%
Taxes	<u>1.6%</u> = (1.5% + 0.0%) / 92.5%
<b>Total</b>	<b>100.0%</b>



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Appendix A – Factors Underlying the Proposed Rate Level Change

##### Appendix A-I Determination of Policy Year On-level Factors

NCCI uses premium and loss on-level factors to adjust historical policy year experience to current advisory rate and benefit levels, respectively.

Premium on-level factors are adjustment factors that reflect the cumulative impact of all premium level changes that have occurred during and after the individual year being on-leveled. To calculate a weighted average, NCCI utilizes a monthly premium distribution for Indiana based on an analysis of policies reported in the Unit Statistical Data, which was updated for this filing. Additional adjustments applied as part of the premium on-level factor calculation include:

- Adjustment for Expense Constant Removal: This factor removes premium collected via the charged expense constant.
- Adjustment for Expense Removal: This factor is applied to remove expenses from the reported assigned risk and voluntary DSR level premium totals—serving to make the separate market premiums more comparable.
- Experience Rating Off-Balance Adjustment Factor: This factor reflects the relative difference between the average experience rating modification for the historical year being on-leveled and the average experience rating modification targeted in the filing.

Loss on-level factors are adjustment factors that reflect the cumulative impact of all benefit level changes that have occurred during and after the individual year of data being on-leveled.

Note: For NCCI ratemaking purposes, proposed benefit level changes that (i) do not impact the experience period of the filing and (ii) have not yet been approved are included in Exhibit I, rather than in the loss on-level calculation.



# INDIANA

## APPENDIX A-I

### Determination of Policy Year On-level Factors

#### Section A - Factor Adjusting 2015 Policy Year Assigned Risk Premium to Present Assigned Risk Level

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Rate Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)	Adj. For Expense Constant Removal @	Adj. For Expense Removal	Premium Adjustment Factor (5)x(6)x(7)
Date								
NR 01/01/15	Base	1.000	1.000	1.000	0.930	0.974	0.622	0.564
NR 01/01/16	1.025	1.025						
NR 01/01/17	0.907	0.930						
				1.000				

#### Section B - Factor Adjusting 2015 Policy Year Voluntary Premium to Present Voluntary Level

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Rate Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)	Adj. For Expense Constant Removal @	Adj. For Expense Removal	Premium Adjustment Factor (5)x(6)x(7)
Date								
NR 01/01/15	Base	1.000	1.000	1.000	0.930	0.974	0.622	0.564
NR 01/01/16	1.025	1.025						
NR 01/01/17	0.907	0.930						
				1.000				

#### Section C - Factor Adjusting 2015 Policy Year Assigned Risk Premium and Voluntary Premium to Present Statewide Level

(1) Assigned Risk Market Share PY 2015	0.082
(2) Voluntary Market Share PY 2015	0.918
(3) Assigned Risk Standard Premium Adjustment Factor (See Sec. A)	0.564
(4) Voluntary Standard Premium Adjustment Factor (See Sec. B)	0.564
(5) Premium Adjustment Factor = [(1)x(3)]/1.180+(2)x(4) #	0.557
(6) Experience Rating Off-balance Adjustment Factor*	1.008
(7) Final Premium Adjustment Factor = (5)x(6)	0.561

NR New and renewal business.

@ Eliminates premium derived from expense constants.

# Current premium index (assigned risk-to-voluntary) = 1.180

\* = 1.008 = 0.961 / 0.953 = (Targeted Off-balance) / (Off-balance for Policy Year 2015)



# INDIANA

## APPENDIX A-I

### Determination of Policy Year On-level Factors

#### Section D - Factor Adjusting 2015 Policy Year Indemnity Losses to Present Benefit Level

	(1)	(2)	(3)	(4)	(5)
Date	Benefit Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)
01/01/15	Base	1.000	0.177	0.177	1.044
07/01/15	1.043	1.043	0.409	0.427	
01/01/16	1.000	1.043	0.324	0.338	
07/01/16	1.041	1.086	0.090	0.098	
				1.040	

#### Section E - Factor Adjusting 2015 Policy Year Medical Losses to Present Benefit Level

	(1)	(2)	(3)	(4)	(5)
Date	Benefit Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)
01/01/15	Base	1.000	0.177	0.177	1.001
07/01/15	1.000	1.000	0.409	0.409	
01/01/16	1.002	1.002	0.324	0.325	
07/01/16	1.000	1.002	0.090	0.090	
				1.001	





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## APPENDIX A-I

### Determination of Policy Year On-level Factors

#### Section F - Factor Adjusting 2014 Policy Year Assigned Risk Premium to Present Assigned Risk Level

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Rate Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)	Adj. For Expense Constant Removal @	Adj. For Expense Removal	Premium Adjustment Factor (5)x(6)x(7)
Date								
NR 01/01/14	Base	1.000	1.000	1.000	0.897	0.974	0.622	0.544
NR 01/01/15	0.965	0.965						
NR 01/01/16	1.025	0.989						
NR 01/01/17	0.907	0.897						
				1.000				

#### Section G - Factor Adjusting 2014 Policy Year Voluntary Premium to Present Voluntary Level

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Rate Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)	Adj. For Expense Constant Removal @	Adj. For Expense Removal	Premium Adjustment Factor (5)x(6)x(7)
Date								
NR 01/01/14	Base	1.000	1.000	1.000	0.897	0.974	0.622	0.544
NR 01/01/15	0.965	0.965						
NR 01/01/16	1.025	0.989						
NR 01/01/17	0.907	0.897						
				1.000				

#### Section H - Factor Adjusting 2014 Policy Year Assigned Risk Premium and Voluntary Premium to Present Statewide Level

(1) Assigned Risk Market Share PY 2014	0.090
(2) Voluntary Market Share PY 2014	0.910
(3) Assigned Risk Standard Premium Adjustment Factor (See Sec. F)	0.544
(4) Voluntary Standard Premium Adjustment Factor (See Sec. G)	0.544
(5) Premium Adjustment Factor = [(1)x(3)]/1.180+(2)x(4) #	0.537
(6) Experience Rating Off-balance Adjustment Factor*	1.015
(7) Final Premium Adjustment Factor = (5)x(6)	0.545

NR New and renewal business.

@ Eliminates premium derived from expense constants.

# Current premium index (assigned risk-to-voluntary) = 1.180

\* = 1.015 = 0.961 / 0.947 = (Targeted Off-balance) / (Off-balance for Policy Year 2014)



# INDIANA

## APPENDIX A-I

### Determination of Policy Year On-level Factors

#### Section I - Factor Adjusting 2014 Policy Year Indemnity Losses to Present Benefit Level

	(1)	(2)	(3)	(4)	(5)
Date	Benefit Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)
07/01/13	Base	1.000	0.177	0.177	1.091
07/01/14	1.047	1.047	0.409	0.428	
01/01/15	1.000	1.047	0.324	0.339	
07/01/15	1.043	1.092	0.090	0.098	
01/01/16	1.000	1.092			
07/01/16	1.041	1.137			
				1.042	

#### Section J - Factor Adjusting 2014 Policy Year Medical Losses to Present Benefit Level

	(1)	(2)	(3)	(4)	(5)
Date	Benefit Level Change	Cumulative Index	Weight	Product (2)x(3)	Adj. Factor Present Index/ Sum Column (4)
07/01/13	Base	1.000	0.177	0.177	0.996
07/01/14	0.932	0.932	0.409	0.381	
01/01/15	1.011	0.942	0.324	0.305	
07/01/15	1.000	0.942	0.090	0.085	
01/01/16	1.002	0.944			
07/01/16	1.000	0.944			
				0.948	



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Appendix A – Factors Underlying the Proposed Rate Level Change

##### Appendix A-II Determination of Premium and Losses Developed to an Ultimate Report

Development factors are used to project premium and limited losses to an ultimate report. In general, the ultimate development factors are based on a chain-ladder approach that utilizes average link ratios for several maturities and the application of a tail factor.

##### Limited Large Loss Methodology

In order to limit volatility on the advisory rate indications due to the impact of extraordinary large losses, a limited large loss methodology is used in Indiana. A base threshold for the large loss limitation is determined by the volume of premium in the state as well as the number of years used in the experience period. The base threshold proposed in this filing is \$9,086,441, based on the volume of premium in policy years 2013 and 2014 underlying the currently approved filing that utilizes data valued as of 12/31/2015. The base threshold is detrended by policy year to reflect the inflationary impact on claim costs due to wage inflation. The wage index used as a basis for these calculations is the Indiana average weekly wages from the Quarterly Census of Employment and Wages (QCEW). Detrended thresholds are used in the experience period, trend period, and loss development period. Indemnity and medical losses are limited at the detrended large loss threshold corresponding to their Policy Year, as shown in Appendix A-II Section L.

Limited indemnity and medical losses used to calculate the ultimate losses are shown in Appendix A-II Section A.

After developing limited indemnity and medical losses to an ultimate report, a statewide excess ratio at the base threshold is used to adjust the limited losses to an unlimited basis. The proposed excess ratio in this filing is 0.2%, as shown in Appendix A-II Section K.

##### Development Factors

For premium development, link ratios are used from 1st report through 5th report. It is assumed that no further development occurs after the 5th report.

For indemnity and medical loss development, link ratios calculated from limited losses are used from 1<sup>st</sup> report through the 19<sup>th</sup> report.

For indemnity and medical loss development past the 19<sup>th</sup> report, a “tail” factor is used to reflect all future expected emergence. The calculation of indemnity and medical paid + case 19<sup>th</sup>-to-ultimate tail factors utilize all available experience for the years prior to the tail attachment point. Tail factors are calculated for the most recent ten available policy years, each relying on losses



## Indiana

### **Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018**

#### **Appendix A – Factors Underlying the Proposed Rate Level Change**

in older policy years as well as a factor to adjust for the differences in the volume of losses between the policy years. Tail factors are calculated separately for indemnity and medical losses by comparing the changes in the volume of policy year losses that occur on policy years reported after a nineteenth report to the volume of policy year losses at the nineteenth report, along with the application of a growth adjustment factor.

Since unlimited losses are used for the tail factor, they are adjusted to a limited basis as shown in Appendix A-II Section H.



## INDIANA

### APPENDIX A-II

#### Determination of Premium and Losses Developed to an Ultimate Report

##### Section A - Premium and Loss Summary Valued as of 12/31/2016

###### Policy Year 2015

(1) Standard Earned Premium	\$774,039,832
(2) Factor to Develop Premium to Ultimate	1.008
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$780,232,151
(4) Limited Indemnity Paid Losses	\$48,187,285
(5) Limited Indemnity Paid Development Factor to Ultimate	2.331
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$112,324,561
(7) Limited Indemnity Paid+Case Losses	\$91,633,288
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1.223
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$112,067,511
(10) Policy Year 2015 Limited Indemnity Losses Developed to Ultimate = [(6)+(9)]/2	\$112,196,036
(11) Limited Medical Paid Losses	\$196,988,165
(12) Limited Medical Paid Development Factor to Ultimate	1.330
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$261,994,259
(14) Limited Medical Paid+Case Losses	\$277,710,699
(15) Limited Medical Paid+Case Development Factor to Ultimate	1.038
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$288,263,706
(17) Policy Year 2015 Limited Medical Losses Developed to Ultimate = [(13)+(16)]/2	\$275,128,983

###### Policy Year 2014

(1) Standard Earned Premium	\$772,002,631
(2) Factor to Develop Premium to Ultimate	0.999
(3) Standard Earned Premium Developed to Ultimate = (1)x(2)	\$771,230,628
(4) Limited Indemnity Paid Losses	\$74,213,631
(5) Limited Indemnity Paid Development Factor to Ultimate	1.499
(6) Limited Indemnity Paid Losses Developed to Ultimate = (4)x(5)	\$111,246,233
(7) Limited Indemnity Paid+Case Losses	\$99,581,580
(8) Limited Indemnity Paid+Case Development Factor to Ultimate	1.085
(9) Limited Indemnity Paid+Case Losses Developed to Ultimate = (7)x(8)	\$108,046,014
(10) Policy Year 2014 Limited Indemnity Losses Developed to Ultimate = [(6)+(9)]/2	\$109,646,124
(11) Limited Medical Paid Losses	\$246,079,024
(12) Limited Medical Paid Development Factor to Ultimate	1.124
(13) Limited Medical Paid Losses Developed to Ultimate = (11)x(12)	\$276,592,823
(14) Limited Medical Paid+Case Losses	\$277,335,024
(15) Limited Medical Paid+Case Development Factor to Ultimate	1.006
(16) Limited Medical Paid+Case Losses Developed to Ultimate = (14)x(15)	\$278,999,034
(17) Policy Year 2014 Limited Medical Losses Developed to Ultimate = [(13)+(16)]/2	\$277,795,929



## INDIANA

### APPENDIX A-II

#### Determination of Premium and Losses Developed to an Ultimate Report

##### Section B - Premium Development Factors

<u>Policy Year</u>	<u>1st/2nd</u>	<u>Policy Year</u>	<u>2nd/3rd</u>	<u>Policy Year</u>	<u>3rd/4th</u>	<u>Policy Year</u>	<u>4th/5th</u>
2012	1.005	2011	1.000	2010	0.998	2009	1.000
2013	1.009	2012	1.000	2011	1.000	2010	1.001
2014	1.012	2013	1.001	2012	1.000	2011	1.000
Average	1.009	Average	1.000	Average	0.999	Average	1.000

##### Summary of Premium Development Factors

<u>1st/5th</u>	<u>2nd/5th</u>	<u>3rd/5th</u>	<u>4th/5th</u>
1.008	0.999	0.999	1.000



# INDIANA

## APPENDIX A-II

### Determination of Premium and Losses Developed to an Ultimate Report

#### Section C - Limited Indemnity Paid Loss Development Factors

Policy Year	<u>1st/2nd</u>	Policy Year	<u>2nd/3rd</u>	Policy Year	<u>3rd/4th</u>	Policy Year	<u>4th/5th</u>
2013	1.553	2012	1.213	2011	1.111	2010	1.053
2014	1.556	2013	1.188	2012	1.109	2011	1.048
Average	1.555	Average	1.201	Average	1.110	Average	1.051
Policy Year	<u>5th/6th</u>	Policy Year	<u>6th/7th</u>	Policy Year	<u>7th/8th</u>	Policy Year	<u>8th/9th</u>
2009	1.018	2008	1.015	2007	1.005	2006	1.009
2010	1.029	2009	1.012	2008	1.010	2007	1.005
Average	1.024	Average	1.014	Average	1.008	Average	1.007
Policy Year	<u>9th/10th</u>	Policy Year	<u>10th/11th</u>	Policy Year	<u>11th/12th</u>	Policy Year	<u>12th/13th</u>
2005	1.004	2004	1.001	2003	1.000	2002	1.000
2006	1.002	2005	1.001	2004	1.001	2003	1.000
Average	1.003	Average	1.001	Average	1.001	Average	1.000
Policy Year	<u>13th/14th</u>	Policy Year	<u>14th/15th</u>	Policy Year	<u>15th/16th</u>	Policy Year	<u>16th/17th</u>
2001	1.000	2000	1.000	1999	1.001	1998	1.000
2002	1.000	2001	0.999	2000	1.000	1999	1.001
Average	1.000	Average	1.000	Average	1.001	Average	1.001
Policy Year	<u>17th/18th</u>	Policy Year	<u>18th/19th</u>				
1997	1.001	1996	1.004				
1998	1.000	1997	1.001				
Average	1.001	Average	1.003				



# INDIANA

## APPENDIX A-II

### Determination of Premium and Losses Developed to an Ultimate Report

#### Section D - Limited Medical Paid Loss Development Factors

<u>Policy Year</u>	<u>1st/2nd</u>	<u>Policy Year</u>	<u>2nd/3rd</u>	<u>Policy Year</u>	<u>3rd/4th</u>	<u>Policy Year</u>	<u>4th/5th</u>
2013	1.174	2012	1.043	2011	1.015	2010	1.009
2014	1.192	2013	1.040	2012	1.015	2011	1.008
Average	1.183	Average	1.042	Average	1.015	Average	1.009
<u>Policy Year</u>	<u>5th/6th</u>	<u>Policy Year</u>	<u>6th/7th</u>	<u>Policy Year</u>	<u>7th/8th</u>	<u>Policy Year</u>	<u>8th/9th</u>
2009	1.007	2008	1.004	2007	1.003	2006	1.006
2010	1.009	2009	1.004	2008	1.002	2007	1.003
Average	1.008	Average	1.004	Average	1.003	Average	1.005
<u>Policy Year</u>	<u>9th/10th</u>	<u>Policy Year</u>	<u>10th/11th</u>	<u>Policy Year</u>	<u>11th/12th</u>	<u>Policy Year</u>	<u>12th/13th</u>
2005	1.001	2004	1.002	2003	1.001	2002	1.000
2006	1.007	2005	1.004	2004	1.003	2003	1.002
Average	1.004	Average	1.003	Average	1.002	Average	1.001
<u>Policy Year</u>	<u>13th/14th</u>	<u>Policy Year</u>	<u>14th/15th</u>	<u>Policy Year</u>	<u>15th/16th</u>	<u>Policy Year</u>	<u>16th/17th</u>
2001	1.003	2000	1.001	1999	1.000	1998	1.003
2002	1.000	2001	1.003	2000	1.000	1999	1.000
Average	1.002	Average	1.002	Average	1.000	Average	1.002
<u>Policy Year</u>	<u>17th/18th</u>	<u>Policy Year</u>	<u>18th/19th</u>				
1997	1.002	1996	1.000				
1998	1.003	1997	1.002				
Average	1.003	Average	1.001				





# INDIANA

## APPENDIX A-II

### Determination of Premium and Losses Developed to an Ultimate Report

#### Section E - Limited Indemnity Paid + Case Loss Development Factors

Policy Year	<u>1st/2nd</u>	Policy Year	<u>2nd/3rd</u>	Policy Year	<u>3rd/4th</u>	Policy Year	<u>4th/5th</u>
2010	1.147	2009	1.038	2008	1.022	2007	1.007
2011	1.141	2010	1.048	2009	1.017	2008	1.011
2012	1.132	2011	1.038	2010	1.013	2009	1.001
2013	1.127	2012	1.072	2011	1.028	2010	1.008
2014	1.089	2013	1.057	2012	1.029	2011	1.001
Average	1.127	Average	1.051	Average	1.022	Average	1.006
Policy Year	<u>5th/6th</u>	Policy Year	<u>6th/7th</u>	Policy Year	<u>7th/8th</u>	Policy Year	<u>8th/9th</u>
2006	1.009	2005	0.998	2004	0.998	2003	0.995
2007	0.997	2006	0.997	2005	0.999	2004	0.998
2008	0.989	2007	1.007	2006	1.001	2005	1.000
2009	0.999	2008	0.999	2007	0.999	2006	0.999
2010	1.004	2009	1.004	2008	0.999	2007	1.001
Average	1.000	Average	1.001	Average	0.999	Average	0.999
Policy Year	<u>9th/10th</u>	Policy Year	<u>10th/11th</u>	Policy Year	<u>11th/12th</u>	Policy Year	<u>12th/13th</u>
2002	0.999	2001	1.002	2000	1.000	1999	1.000
2003	1.004	2002	1.001	2001	0.999	2000	0.999
2004	0.999	2003	1.002	2002	1.001	2001	0.998
2005	1.003	2004	1.000	2003	1.000	2002	1.000
2006	1.000	2005	1.002	2004	1.001	2003	1.000
Average	1.001	Average	1.001	Average	1.000	Average	0.999
Policy Year	<u>13th/14th</u>	Policy Year	<u>14th/15th</u>	Policy Year	<u>15th/16th</u>	Policy Year	<u>16th/17th</u>
1998	1.000	1997	1.001	1996	1.000	1995	1.000
1999	1.000	1998	1.000	1997	1.000	1996	1.000
2000	1.000	1999	1.000	1998	1.000	1997	1.000
2001	1.000	2000	1.000	1999	1.000	1998	1.000
2002	1.001	2001	0.999	2000	1.000	1999	1.001
Average	1.000	Average	1.000	Average	1.000	Average	1.000
Policy Year	<u>17th/18th</u>	Policy Year	<u>18th/19th</u>				
1994	1.000	1993	1.000				
1995	1.000	1994	1.000				
1996	0.999	1995	1.000				
1997	1.000	1996	1.004				
1998	1.000	1997	1.000				
Average	1.000	Average	1.001				



# INDIANA

## APPENDIX A-II

### Determination of Premium and Losses Developed to an Ultimate Report

#### Section F - Limited Medical Paid + Case Loss Development Factors

Policy Year	<u>1st/2nd</u>	Policy Year	<u>2nd/3rd</u>	Policy Year	<u>3rd/4th</u>	Policy Year	<u>4th/5th</u>
2010	1.054	2009	0.994	2008	0.997	2007	1.001
2011	1.075	2010	1.007	2009	0.989	2008	1.003
2012	1.043	2011	0.991	2010	1.004	2009	0.999
2013	1.002	2012	0.989	2011	0.998	2010	0.995
2014	0.987	2013	0.998	2012	0.983	2011	0.996
Average	1.032	Average	0.996	Average	0.994	Average	0.999
Policy Year	<u>5th/6th</u>	Policy Year	<u>6th/7th</u>	Policy Year	<u>7th/8th</u>	Policy Year	<u>8th/9th</u>
2006	0.999	2005	0.999	2004	0.998	2003	0.998
2007	0.997	2006	1.002	2005	0.998	2004	1.000
2008	0.993	2007	1.005	2006	0.996	2005	0.999
2009	1.001	2008	0.996	2007	1.006	2006	1.006
2010	1.002	2009	1.003	2008	0.999	2007	1.002
Average	0.998	Average	1.001	Average	0.999	Average	1.001
Policy Year	<u>9th/10th</u>	Policy Year	<u>10th/11th</u>	Policy Year	<u>11th/12th</u>	Policy Year	<u>12th/13th</u>
2002	1.004	2001	1.009	2000	1.009	1999	0.998
2003	1.000	2002	1.001	2001	0.998	2000	1.001
2004	1.000	2003	0.999	2002	1.001	2001	1.004
2005	0.999	2004	1.004	2003	1.004	2002	0.999
2006	1.002	2005	1.002	2004	1.004	2003	1.014
Average	1.001	Average	1.003	Average	1.003	Average	1.003
Policy Year	<u>13th/14th</u>	Policy Year	<u>14th/15th</u>	Policy Year	<u>15th/16th</u>	Policy Year	<u>16th/17th</u>
1998	1.006	1997	1.000	1996	0.999	1995	1.000
1999	0.999	1998	1.015	1997	0.998	1996	1.000
2000	1.001	1999	1.000	1998	0.999	1997	1.000
2001	1.004	2000	1.000	1999	1.000	1998	0.999
2002	0.999	2001	0.996	2000	0.999	1999	1.000
Average	1.002	Average	1.002	Average	0.999	Average	1.000
Policy Year	<u>17th/18th</u>	Policy Year	<u>18th/19th</u>				
1994	1.002	1993	1.000				
1995	1.000	1994	1.000				
1996	0.999	1995	1.001				
1997	1.001	1996	1.002				
1998	1.005	1997	1.000				
Average	1.001	Average	1.001				



# INDIANA

## APPENDIX A-II

### Determination of Premium and Losses Developed to an Ultimate Report

#### Section G - Determination of Policy Year Loss Development Factors (19th-to-Ultimate Report)

##### Indemnity Paid+Case Data for Matching Companies

(1) Policy Year	(2) <u>Losses for Policy Year</u> 19th Report	(3) <u>Losses for Policy Year</u> 20th Report	(4) <u>Losses for All Prior Policy Years</u> Previous	(5) <u>Losses for All Prior Policy Years</u> Current	(6) Factor to Adjust Losses for Prior Policy Years	(7) Indicated 19th-to-Ult Development for Policy Year
1987	81,713,501	81,785,251	755,759,354	756,182,720	0.562	1.010
1988	105,457,172	105,471,494	835,817,080	835,693,390	0.473	0.998
1989	116,058,644	116,061,522	936,621,902	936,438,493	0.475	0.997
1990	115,887,595	115,864,234	1,031,922,300	1,032,118,894	0.529	1.003
1991	111,694,592	111,685,133	1,147,983,128	1,148,551,878	0.619	1.008
1992	95,588,037	95,755,950	1,259,952,491	1,260,377,855	0.801	1.007
1993	93,024,429	93,021,427	1,356,158,382	1,356,576,490	0.886	1.005
1994	86,763,019	86,774,518	1,440,762,911	1,440,900,984	0.999	1.002
1995	81,745,960	81,776,925	1,525,011,995	1,525,700,495	1.112	1.008
1996	80,089,797	80,458,298	1,606,212,584	1,606,073,648	1.162	1.003

Selected Indemnity 19th-to-Ultimate Loss Development Factor 1.004

##### Medical Paid+Case Data for Matching Companies

(8) Policy Year	(9) <u>Losses for Policy Year</u> 19th Report	(10) <u>Losses for Policy Year</u> 20th Report	(11) <u>Losses for All Prior Policy Years</u> Previous	(12) <u>Losses for All Prior Policy Years</u> Current	(13) Factor to Adjust Losses for Prior Policy Years	(14) Indicated 19th-to-Ult Development for Policy Year
1987	119,675,086	119,716,696	764,820,267	765,225,296	0.520	1.007
1988	147,389,533	147,521,043	883,349,424	883,915,585	0.465	1.009
1989	164,417,397	164,376,250	1,025,806,893	1,025,502,698	0.463	0.996
1990	186,637,360	187,253,894	1,165,296,134	1,168,337,713	0.462	1.039
1991	184,721,640	184,680,004	1,355,591,607	1,352,468,853	0.546	0.969
1992	182,351,703	181,469,369	1,537,080,009	1,534,434,935	0.627	0.972
1993	173,839,979	173,669,517	1,715,882,236	1,714,325,706	0.733	0.987
1994	178,598,308	178,555,296	1,876,593,330	1,876,889,821	0.773	1.002
1995	169,217,843	169,232,774	2,051,923,751	2,055,827,297	0.878	1.026
1996	168,697,175	168,797,094	2,224,531,435	2,229,944,724	0.934	1.035

Selected Medical 19th-to-Ultimate Loss Development Factor 1.004

$$(7) = 1 + [(3)-(2) + ((5)-(4)) / (6)] / (2)$$

$$(14) = 1 + [(10)-(9) + ((12)-(11)) / (13)] / (9)$$

Columns (4) and (11) are valued as of the date at which the given policy year is at a 19th report.

Columns (5) and (12) are valued as of the date at which the given policy year is at a 20th report.



# INDIANA

## APPENDIX A-II

### Determination of Premium and Losses Developed to an Ultimate Report

#### Section H - Derivation of Policy Year Limited 19th-to-Ultimate Loss Development Factors

Policy Year	Indemnity Paid-to-Paid + Case Ratio 19th Report	Medical Paid-to-Paid + Case Ratio 19th Report
1993	1.000	0.996
1994	1.000	0.982
1995	0.999	0.987
1996	1.000	0.996
1997	0.995	0.985
Average	0.999	0.989

	Indemnity	Medical
(1) Paid+Case 19th-to-Ultimate Loss Development Factor (Section G)	1.004	1.004
(2) Factor to Adjust 19th-to-Ultimate Development Factor to a Limited Basis	0.793	0.793
(3) Limited Paid+Case 19th-to-Ultimate Loss Development Factor = $[(1)-1] \times (2) + 1$	1.003	1.003
(4) Limited Paid-to-Paid+Case Ratio (Section H)	0.999	0.989
(5) Limited Paid 19th-to-Ultimate Loss Development Factor = (3) / (4)	1.004	1.014

#### Section I - Summary of Limited Paid Loss Development Factors

(1) Indemnity Paid Loss Development		(2) to Next Report		(3) Medical Paid Loss Development		(4) to Next Report	
Report	to Next Report	to Ultimate		Report	to Next Report	to Ultimate	
1st	1.555	2.331		1st	1.183	1.330	
2nd	1.201	1.499		2nd	1.042	1.124	
3rd	1.110	1.248		3rd	1.015	1.079	
4th	1.051	1.124		4th	1.009	1.063	
5th	1.024	1.069		5th	1.008	1.054	
6th	1.014	1.044		6th	1.004	1.046	
7th	1.008	1.030		7th	1.003	1.042	
8th	1.007	1.022		8th	1.005	1.039	
9th	1.003	1.015		9th	1.004	1.034	
10th	1.001	1.012		10th	1.003	1.030	
11th	1.001	1.011		11th	1.002	1.027	
12th	1.000	1.010		12th	1.001	1.025	
13th	1.000	1.010		13th	1.002	1.024	
14th	1.000	1.010		14th	1.002	1.022	
15th	1.001	1.010		15th	1.000	1.020	
16th	1.001	1.009		16th	1.002	1.020	
17th	1.001	1.008		17th	1.003	1.018	
18th	1.003	1.007		18th	1.001	1.015	
19th		1.004	Section H	19th		1.014	Section H

(2) = Cumulative upward product of column (1).

(4) = Cumulative upward product of column (3).



# INDIANA

## APPENDIX A-II

### Determination of Premium and Losses Developed to an Ultimate Report

#### Section J - Summary of Limited Paid+Case Loss Development Factors

	(1)	(2)
	<u>Indemnity Paid+Case Loss Development</u>	<u>to Ultimate</u>
Report	<u>to Next Report</u>	<u>to Ultimate</u>
1st	1.127	1.223
2nd	1.051	1.085
3rd	1.022	1.032
4th	1.006	1.010
5th	1.000	1.004
6th	1.001	1.004
7th	0.999	1.003
8th	0.999	1.004
9th	1.001	1.005
10th	1.001	1.004
11th	1.000	1.003
12th	0.999	1.003
13th	1.000	1.004
14th	1.000	1.004
15th	1.000	1.004
16th	1.000	1.004
17th	1.000	1.004
18th	1.001	1.004
19th		1.003

Section H

	(3)	(4)
	<u>Medical Paid+Case Loss Development</u>	<u>to Ultimate</u>
Report	<u>to Next Report</u>	<u>to Ultimate</u>
1st	1.032	1.038
2nd	0.996	1.006
3rd	0.994	1.010
4th	0.999	1.016
5th	0.998	1.017
6th	1.001	1.019
7th	0.999	1.018
8th	1.001	1.019
9th	1.001	1.018
10th	1.003	1.017
11th	1.003	1.014
12th	1.003	1.011
13th	1.002	1.008
14th	1.002	1.006
15th	0.999	1.004
16th	1.000	1.005
17th	1.001	1.005
18th	1.001	1.004
19th		1.003

Section H

(2) = Cumulative upward product of column (1).

(4) = Cumulative upward product of column (3).



## INDIANA

### APPENDIX A-II

#### Determination of Premium and Losses Developed to an Ultimate Report

##### Section K - Factor to Adjust Limited Losses to an Unlimited Basis

(1) Threshold at the Midpoint of the Loss Cost Effective Period*	9,086,441
(2) Statewide Excess Ratio for (1)	0.002
(3) Market Share for Carriers Missing from Large Loss and Catastrophe Call	0.000
(4) Factor to Adjust Limited Losses to an Unlimited Basis = $1.0 / \{1.0 - [(2) \times (1.0 - (3))]\}$	1.002

##### Section L - Policy Year Large Loss Limits

Experience Year	Policy Year Detrended Limit
2015	8,027,156
2014	7,803,760
2013	7,604,574
2012	7,487,889
2011	7,339,109
2010	7,146,163
2009	6,950,451
2008	6,904,545
2007	6,835,183
2006	6,663,670
2005	6,470,263
2004	6,308,700
2003	6,113,362
2002	5,924,470
2001	5,777,603
2000	5,643,078
1999	5,485,208
1998	5,312,953
1997	5,077,789

\* November 29, 2018 is the midpoint of the effective period for which the revised loss costs are being proposed.



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Appendix A – Factors Underlying the Proposed Rate Level Change

##### Appendix A-III Trend Factors

NCCI separately analyzes a measure of the number of workplace injuries (claim frequency) and the average indemnity and medical costs of each of these injuries (claim severity). Premium, lost-time claim counts, and limited losses used in these frequency and severity calculations are developed to ultimate and adjusted for changes in the level of workers' wages over time using the United States Bureau of Labor Statistics Quarterly Census of Employment and Wages for Indiana. Note that medical-only claim counts are excluded from the claim frequency and severity calculations, but the losses associated with medical-only claims are included.

While claim frequency and average costs per case are reviewed separately, NCCI selects annual indemnity and medical loss ratio trend factors based on an analysis of historical indemnity and medical loss ratios, along with other pertinent considerations, including, but not limited to, changes in system benefits and administration, economic environment, credibility of state data, and prior trend approach and selection.

The lost-time claim frequency, average costs per case, and loss ratios for Policy Years 2008 through 2015 are shown in Appendix A-III, along with the impact of the trend selection for each policy year in the experience period. The trend lengths displayed in Section B(3) are calculated by comparing the average accident date for the effective period of the proposed rates to each of the policy years in the experience period. The average accident dates are based on an Indiana distribution of policy writings by month and assume a uniform probability of loss over the coverage period.



## INDIANA

### APPENDIX A-III

#### Policy Year Trend Factors

##### Section A - Summary of Policy Year Data

(1)	(2)	(3)	(4)	(5)	(6)
Policy Year	Lost-Time Claim Frequency*	Indemnity		Medical	
		Avg Cost Per Case*^	Loss Ratio^	Avg Cost Per Case*^	Loss Ratio^
2008	24.427	15,861	0.387	31,832	0.777
2009	23.604	15,013	0.354	33,616	0.793
2010	23.728	15,562	0.369	34,730	0.825
2011	22.240	15,196	0.338	34,921	0.777
2012	20.865	15,380	0.321	36,236	0.757
2013	21.319	15,207	0.324	36,675	0.782
2014	19.822	14,370	0.285	33,228	0.658
2015	18.439	14,513	0.268	34,123	0.629

\* Figures have been adjusted to the common wage level.

^ Based on an average of paid and paid+case losses.

##### Section B - Summary of Annual Trend Factors

	<u>Indemnity</u>	<u>Medical</u>
(1) Current Approved Annual Loss Ratio Trend Factor	0.965	1.000
(2) Selected Annual Loss Ratio Trend Factor	<b>0.960</b>	<b>0.995</b>
(3) Length of Trend Period from Midpoint of Policy Year to Midpoint of Effective Period:		
		<u>Years</u>
Policy Year 2014		3.998
Policy Year 2015		2.998
(4) Trend Factor Applied to Experience Year = (2) ^ (3)	<u>Indemnity</u>	<u>Medical</u>
Policy Year 2014	0.849	0.980
Policy Year 2015	0.885	0.985





## INDIANA

### APPENDIX A-IV

#### Derivation of Industry Group Differentials

Industry group differentials are used to more equitably distribute the overall rate level change based on the individual experience of each industry group. The payroll, losses and claim counts used in the calculations below are from NCCI's Workers Compensation Statistical Plan (WCSP) data.

#### I. Expected Losses

The current expected losses (columns (1) and (2)) are the payroll extended by the pure premiums underlying the latest approved rates. The proposed expected losses (3) are the current expected losses adjusted to the proposed level. These adjustments include the proposed experience, trend, benefit and, if applicable, loss-based expense changes as well as any miscellaneous premium adjustments.

Industry Group	(1) Latest Year Current Expected Losses Prior to Adjustment for Change in Off-Balance	(2) Five Year Current Expected Losses Prior to Adjustment for Change in Off-Balance	(3) Five Year Proposed Expected Losses Prior to Adjustment for Change in Off-Balance	(4) Current Ratio of Manual to Standard Premium	(5) Proposed Ratio of Manual to Standard Premium
Manufacturing	216,587,660	978,781,066	862,403,338	1.100	1.112
Contracting	124,428,976	585,359,292	515,547,899	1.136	1.137
Office & Clerical	79,550,026	368,399,188	324,650,858	1.082	1.098
Goods & Services	251,491,972	1,155,539,110	1,018,245,188	1.016	1.034
Miscellaneous	139,610,548	651,659,339	573,835,230	1.047	1.056
Statewide	811,669,180	3,739,737,995	3,294,682,513		

Industry Group	(6) Latest Year Current Expected Losses Adjusted for Change in Off-Balance (1)x(4)/(5)	(7) Five Year Current Expected Losses Adjusted for Change in Off-Balance (2)x(4)/(5)	(8) Five Year Proposed Expected Losses Adjusted for Change in Off-Balance (3)x(4)/(5)	(9) Current/ Proposed (7)/(8)	(10) Adjustment to Proposed for Current Relativity (9)IG/(9)SW
Manufacturing	214,250,383	968,218,680	853,096,827	1.135	1.000
Contracting	124,319,540	584,844,464	515,094,471	1.135	1.000
Office & Clerical	78,390,827	363,030,894	319,920,062	1.135	1.000
Goods & Services	247,113,968	1,135,423,342	1,000,519,450	1.135	1.000
Miscellaneous	138,420,685	646,105,425	568,944,588	1.136	1.001
Statewide	802,495,403	3,697,622,805	3,257,575,398	1.135	



## INDIANA

### APPENDIX A-IV

#### II. Industry Group Differentials

To calculate the converted indicated balanced losses (11) the reported losses are limited to \$500,000 for a single claim occurrence and \$1,500,000 for each multiple claim occurrence. After the application of limited development, trend and benefit factors, the limited losses are brought to an unlimited level through the application of the expected excess provision. The proposed experience change, applicable loss-based expenses and any miscellaneous premium adjustments are applied to calculate the indicated losses. These indicated losses are then balanced to the expected losses using the factors shown in Appendix B-I, Section A-3.

Industry Group	(11) Converted Indicated Balanced Losses	(12) Indicated/ Expected Ratio (11)/[(8)x(10)]	(13) Indicated Differential (12)IG/(12)SW	(14) Lost-Time Claim Counts
Manufacturing	859,858,532	1.008	1.008	19,694
Contracting	504,208,619	0.979	0.979	8,468
Office & Clerical	314,206,159	0.982	0.982	6,401
Goods & Services	1,001,024,862	1.001	1.001	24,320
Miscellaneous	578,087,431	1.015	1.015	11,516
Statewide	3,257,385,603	1.000		

Industry Group	(15) Full Credibility Standard for Lost-Time Claim Counts	(16) Credibility Minimum of 1.000 and ((14)/(15))^0.5	(17) Credibility Weighted Indicated/Expected Ratio [(16)IGx(12)IG] + [1-(16)IG]x(12)SW*	(18) Final Industry Group Differential (17)IG/(17)SW
Manufacturing	12,000	1.00	1.008	1.007
Contracting	12,000	0.84	0.982	0.981
Office & Clerical	12,000	0.73	0.987	0.986
Goods & Services	12,000	1.00	1.001	1.000
Miscellaneous	12,000	0.98	1.015	1.014
Statewide			1.001	1.000

\*Statewide ratio (column 17) =  $\Sigma_{IG}[(6)x(17)] \div \Sigma_{IG}(6)$



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Appendix B – Calculations Underlying the Rate Change by Classification

NCCI separately determines advisory rates for each workers compensation classification. The proposed change from the current advisory rate will vary depending on the classification. The following are the general steps utilized to determine the individual classification rates:

1. Calculate industry group differentials, which are used to more equitably distribute the proposed overall average advisory rate level change based on the individual experience of each industry group
2. For each classification, determine the indicated pure premiums based on the most recently-available five policy periods of Indiana payroll and loss experience
3. Indicated pure premiums are credibility-weighted with present on rate level pure premiums and national pure premiums to generate derived by formula pure premiums
4. Final adjustments include the application of a test correction factor, the ratio of manual-to-standard premium, and swing limits.



## INDIANA

### APPENDIX B-I

#### Distribution of Rate Level Change to Occupational Classification

After determining the required changes in the overall rate level for the state and by industry group, the next step in the ratemaking procedure is to distribute these changes among the various occupational classifications. In order to do this, the pure premiums by classification must be adjusted, by policy period, industry group, or on an overall basis, to incorporate the changes proposed in the filing. There are three sets of pure premiums for each classification: indicated, present on rate level, and national pure premiums.

#### Section A – Calculation of Indicated Pure Premiums

The indicated pure premiums are calculated from the payroll and loss data reported, by class code and policy period, in the Workers Compensation Statistical Plan (WCSP) for the latest available five policy periods. Various adjustments are made to these pure premiums to put them at the level proposed in this filing (Sections A-1 to A-3).

#### Section A-1 – Calculation of Primary Conversion Factors

##### 1. Limited Loss Development Factors

The following factors are applied to develop the losses from first through fifth report to an ultimate basis.

Policy Period	Indemnity		Medical	
	Likely-to-Develop	Not-Likely-to-Develop	Likely-to-Develop	Not-Likely-to-Develop
7/10-6/11	1.010	1.004	1.064	1.003
7/11-6/12	1.019	1.010	1.067	1.003
7/12-6/13	1.067	1.030	1.061	1.005
7/13-6/14	1.181	1.077	1.075	1.008
7/14-6/15	1.542	1.163	1.162	1.025

##### 2. Factors to Adjust to the Proposed Trend Level

The proposed trend factors are applied to adjust the losses to the proposed level.

Policy Period	Indemnity	Medical
7/10-6/11	0.738	0.963
7/11-6/12	0.768	0.968
7/12-6/13	0.800	0.973
7/13-6/14	0.834	0.978
7/14-6/15	0.868	0.983

##### 3. Factors to Adjust to the January 1, 2017 Benefit Level

The following factors are applied to adjust the losses to the proposed benefit level.

Policy Period	Fatal	Permanent Total (P.T.)	Permanent Partial (P.P.)	Temporary Total (T.T.)	Medical
7/10-6/11	1.066	1.157	1.174	1.069	0.951
7/11-6/12	1.066	1.157	1.174	1.069	0.951
7/12-6/13	1.066	1.157	1.174	1.069	0.951
7/13-6/14	1.054	1.130	1.142	1.057	0.982
7/14-6/15	1.030	1.073	1.081	1.032	1.012



## INDIANA

### APPENDIX B-I

#### 4. Primary Conversion Factors: Indicated Pure Premiums

The factors above, contained within Section A-1, are combined multiplicatively, resulting in the following factors for the Likely-to-Develop (L) and Not-Likely-to-Develop (NL) groupings.

Policy Period	Fatal (L)	Fatal (NL)	P.T.*	P.P. (L)	P.P. (NL)	T.T. (L)	T.T. (NL)	Medical (L)	Medical (NL)
7/10-6/11	0.795	0.790	0.862	0.875	0.870	0.797	0.792	0.974	0.919
7/11-6/12	0.834	0.827	0.905	0.919	0.911	0.837	0.829	0.982	0.923
7/12-6/13	0.910	0.878	0.988	1.002	0.967	0.912	0.881	0.982	0.930
7/13-6/14	1.038	0.947	1.113	1.125	1.026	1.041	0.949	1.032	0.968
7/14-6/15	1.379	1.040	1.436	1.447	1.091	1.381	1.042	1.156	1.020

\* Permanent total losses are always assigned to the Likely-to-Develop grouping.

#### Section A-2 – Expected Excess Provision and Redistribution

After the application of the primary conversion factors, the limited losses are brought to an expected unlimited level through the application of excess loss factors by hazard group. These factors are shown below.

Hazard Group	A	B	C	D	E	F	G
(1) Excess Ratios	0.046	0.065	0.075	0.092	0.116	0.141	0.173
(2) Excess Factors 1/(1-(1))	1.048	1.070	1.081	1.101	1.131	1.164	1.209

As the excess loss factors are on a combined (indemnity and medical) basis, a portion (40%) of the indemnity expected excess losses are redistributed to medical in order to more accurately allocate expected excess losses. Since a portion of the expected excess losses are redistributed in an additive manner, the expected excess factors shown above cannot be combined multiplicatively with either the primary or secondary loss conversion factors.



## INDIANA

### APPENDIX B-I

#### Section A-3 – Calculation of Secondary Conversion Factors

##### 1. Factors to Adjust for Proposed Industry Group Differentials

The following factors are applied to adjust the indicated industry group differentials for the effects of credibility weighting the industry group differentials and weighting the differentials by the latest year expected losses.

	Manufacturing	Contracting	Office and Clerical	Goods and Services	Miscellaneous
(1) Indicated Differentials*	1.008	0.979	0.982	1.001	1.015
(2) Final Differentials**	1.007	0.981	0.986	1.000	1.014
(3) Adjustment (2)/(1)	0.999	1.002	1.004	0.999	0.999

\*See Appendix A-IV, column (13).

\*\*See Appendix A-IV, column (18).

##### 2. Factors to Balance Indicated to Expected Losses

The expected losses are calculated as the pure premium underlying the current rates, adjusted to the proposed level and adjusted for the Experience Rating Plan off-balance. The indicated losses are balanced to the expected losses by applying the following factors.

Policy Period	(1) Adjustment of Indicated Losses to Pure Premium at Proposed Level	(2) Current Ratio of Manual to Standard Premium	(3) Proposed Ratio of Manual to Standard Premium	(4) Off-balance Adjustment (2)/(3)	(5) Balancing Indicated to Expected Losses (1)x(4)
7/10-6/11	0.970	1.069	1.056	1.012	0.982
7/11-6/12	0.972	1.069	1.062	1.007	0.979
7/12-6/13	0.948	1.068	1.080	0.989	0.938
7/13-6/14	0.979	1.069	1.097	0.974	0.954
7/14-6/15	1.086	1.069	1.108	0.965	1.048

##### 3. Adjustment for Experience Change

A factor of 0.890 is applied to adjust for the experience change in the proposed rate level.

##### 4. Factor to Reflect the Proposed Loss-Based Expense Provisions

A factor of 1.166 is applied to include the proposed loss-based expense provisions.

##### 5. Secondary Conversion Factors: Indicated Pure Premiums

The factors above, contained within section A-3, are combined multiplicatively, resulting in the following factors:

Policy Period	Manufacturing	Contracting	Office and Clerical	Goods and Services	Miscellaneous
7/10-6/11	1.018	1.021	1.023	1.018	1.018
7/11-6/12	1.015	1.018	1.020	1.015	1.015
7/12-6/13	0.972	0.975	0.977	0.972	0.972
7/13-6/14	0.989	0.992	0.994	0.989	0.989
7/14-6/15	1.086	1.090	1.092	1.086	1.086



## INDIANA

### APPENDIX B-I

#### Section B – Calculation of Present on Rate Level Pure Premiums

The present on rate level pure premiums are the pure premiums underlying the current rates, adjusted to the proposed level. The data sources for the above-captioned pure premiums are the partial pure premiums underlying the current rates.

##### 1. Adjustment for Experience Change

A factor of 0.890 is applied to adjust for the experience change in the proposed rate level.

##### 2. Factors to Adjust to the Proposed Trend Level

The pure premiums underlying the current rates contain the current trend. The change in trend factors, 0.982 and 0.983, for indemnity and medical, respectively, are applied to adjust to the proposed trend level.

##### 3. Factors to Adjust to the January 1, 2017 Benefit Level

The pure premiums underlying the current rates are at the current July 1, 2016 level. The following factors are applied to adjust to the proposed benefit level.

Effective Date	Indemnity	Medical
October 1, 2016	1.000	1.002
January 1, 2017	1.000	1.006
Combined Benefit Adjustment	1.000	1.008

##### 4. Factors to Include the Proposed Loss-Based Expense Provisions

The pure premiums underlying the current rates include the current loss-based expense provisions and must be adjusted to the proposed level.

	(a) Current		(b) Proposed	
	Indemnity	Medical	Indemnity	Medical
(1) Loss Adjustment Expense	1.165	1.165	1.166	1.166
(2) Loss-based Assessment	1.000	1.000	1.000	1.000
(3) = (1) + (2) – 1.000	1.165	1.165	1.166	1.166
(4) Overall Change (3b)/(3a)			1.001	1.001

##### 5. Adjustment to Obtain Expected Losses

The pure premiums underlying the current rates reflect the current Experience Rating Plan off-balance. The change in off-balance must be applied.

Industry Group	(1) Current Ratio of Manual to Standard Premium	(2) Proposed Ratio of Manual to Standard Premium	(3) Off-balance Adjustment (1)/(2)
Manufacturing	1.100	1.112	0.989
Contracting	1.136	1.137	0.999
Office & Clerical	1.082	1.098	0.985
Goods & Services	1.016	1.034	0.983
Miscellaneous	1.047	1.056	0.991



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**APPENDIX B-I**

**6. Factors to Adjust for Proposed Industry Group Differentials**

The pure premiums underlying the current rates are adjusted by the proposed industry group differentials.

Industry Group	(1) Final Differential*	(2) Adjustment to Proposed for Current Relativities**	(3) Adjusted Differential (1)x(2)
Manufacturing	1.007	1.000	1.007
Contracting	0.981	1.000	0.981
Office & Clerical	0.986	1.000	0.986
Goods & Services	1.000	1.000	1.000
Miscellaneous	1.014	1.001	1.015

\*See Appendix A-IV, column (18).

\*\*See Appendix A-IV, column (10).

**7. Combined Conversion Factors**

The factors above, contained within Section B, are combined multiplicatively, resulting in the following factors.

Industry Group	Indemnity	Medical
Manufacturing	0.871	0.879
Contracting	0.858	0.865
Office & Clerical	0.850	0.858
Goods & Services	0.860	0.868
Miscellaneous	0.880	0.888





## INDIANA

### APPENDIX B-I

#### Section C – Calculation of National Pure Premiums

Finally, there are the national pure premiums, which reflect the countrywide experience for each classification adjusted to state conditions. These pure premiums reflect the countrywide experience for each classification as indicated by the latest available individual classification experience for all states for which the National Council on Compensation Insurance compiles workers compensation data.

Countrywide data is adjusted to Indiana conditions in four steps. First, statewide indicated pure premiums are determined for Indiana. Second, using Indiana payrolls as weights, corresponding statewide-average pure premiums are computed for each remaining state. Third, the ratios of Indiana statewide pure premiums to those for other states are used as adjustment factors to convert losses for other states to a basis that is consistent with the Indiana indicated pure premiums. The quotient of the countrywide total of such adjusted losses divided by the total countrywide payroll for the classification is the initial pure premium indicated by national relativity. Finally, national pure premiums are balanced to the level of the state indicated pure premiums to ensure unbiased derived by formula pure premiums. Indemnity and medical pure premiums are computed separately.

#### Section D – Calculation of Derived by Formula Pure Premiums

The indicated, present on rate level and national pure premiums are credibility weighted, and the resulting derived by formula pure premiums are used to determine the final class rates.

As for the preceding pure premiums, separate computations are performed for each partial pure premium: indemnity and medical. Each partial formula pure premium is derived by the weighting of the indicated, present on rate level and national partial pure premiums. The weight assigned to the policy year indicated pure premium varies in one-percent intervals from zero percent to one hundred percent, depending upon the volume of expected losses (i.e. the product of the underlying pure premiums and the payroll in hundreds). To achieve full state credibility, a classification must have expected losses of at least: \$9,845,387 for indemnity and \$14,090,831 for medical.

The partial credibilities formula is:

$$z = [ (\text{expected losses}) / (\text{full credibility standard}) ]^{0.4}$$

For the national pure premiums, credibility is determined from the number of lost-time claims. Full credibility standards are: 1,150 lost-time claims for indemnity and 1,000 lost-time claims for medical.

Partial credibilities are assigned using a credibility formula similar to that used for indicated pure premiums but based on the number of national cases. In no case is the national credibility permitted to exceed 50% of the complement of the state credibility.

National Credibility equals the smaller of:

$$[ (\text{national cases}) / (\text{full credibility standard}) ]^{0.4} \text{ and } [ (1 - \text{state credibility}) / 2 ]$$

The residual credibility (100% minus the sum of the state and national credibilities) is assigned to the present on rate level pure premium.

For example, if the state credibility is 40%, the national pure premium is assigned a maximum credibility of 30%  $((100 - 40) / 2)$ . The remainder is assigned to the present on rate level pure premium.

The total pure premium shown on the attached Appendix B-III is obtained by adding the indemnity and medical partial pure premiums obtained above and rounding the sum to two decimal places.



## INDIANA

### APPENDIX B-II

#### Adjustments to Obtain Rates

The following items are combined with the derived by formula pure premium to obtain the proposed rate:

##### 1. Test Correction Factor

The payrolls are now extended by the rates presently in effect and by the indicated rates to determine if the required change in manual premium level as calculated in Exhibit I has been achieved. Since at first this calculation may not yield the required results, an iterative process is initiated which continuously tests the proposed rates including tentative test correction factors until the required change in manual premium level is obtained. The test correction factor is applied to the derived by formula pure premiums.

The factors referred to above are set out as follows:

	Test Correction Factor
Manufacturing	1.0004
Contracting	0.9958
Office & Clerical	0.9643
Goods & Services	0.9983
Miscellaneous	0.9996

##### 2. Ratios of Manual to Standard Premiums

The ratios of manual to standard premiums by industry group have also been excluded from the classification experience, and it is necessary to apply these factors to the derived by formula pure premiums.

	Ratio of Manual to Standard Premiums
Manufacturing	1.112
Contracting	1.137
Office & Clerical	1.098
Goods & Services	1.034
Miscellaneous	1.056

##### 3. Expense Allowance

The expense allowance is introduced into the rate by dividing the product of the proposed pure premium and the appropriate factors above by the proposed target cost ratio of 0.731 (see Exhibit II-A for derivation of this factor). This operation produces the proposed rate prior to the addition of a disease loading, if any.

##### 4. Disease Loadings

The proposed manual rates shown in this filing include specific disease loadings for those classifications where they apply. The proposed specific disease loadings are shown on the footnotes page.



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**APPENDIX B-II**

**5. Swing Limits**

As a further step, a test is made to make certain that the proposed rates fall within the following departures from the present rates:

Manufacturing	from 13% above to 37% below
Contracting	from 11% above to 39% below
Office & Clerical	from 11% above to 39% below
Goods & Services	from 12% above to 38% below
Miscellaneous	from 13% above to 37% below

These limits have been calculated in accordance with the following formula:

Max. Deviation = Effect of the final change in rate level by industry group plus or minus 25% rounded to the nearest 1%.

The product of the swing limits and the present rate sets bounds for the proposed rate. If the calculated rate falls outside of the bounds, the closest bound is chosen as the proposed rate. When a code is limited, the underlying pure premiums are adjusted to reflect the limited rate. The classifications which have been so limited are shown below. Note that classifications that are subject to special handling may fall outside of the swing limits.

An illustrative example showing the calculation of a proposed manual class rate is attached as Appendix B-III. This example demonstrates the manner in which the partial pure premiums are combined to produce a total pure premium, and shows the steps in the calculation at which the rounding takes place. The rates for other classifications are calculated in the same manner.

List of Classifications Limited by the Upper Swing

2683 6854 7405 7445 7711 8045 8856

List of Classifications Limited by the Lower Swing

1472 4653 8721 8755



## INDIANA

### APPENDIX B-III

#### Derivation of Proposed Rate - Code 8810

As previously explained in Appendix B-I, the indicated pure premiums are developed by adjusting the limited losses by a set of conversion factors. The converted losses are then summarized into indemnity and medical and then divided by payroll (in hundreds). The derivation of the indicated pure premium for the above-captioned classification follows:

#### LIMITED LOSSES (Workers Compensation Statistical Plan)

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
07/01/10 - 06/30/11	0	0	57,190	616,700	2,363,365	151,908	873,672	2,537,694	12,788,794
07/01/11 - 06/30/12	0	0	81,042	904,616	1,469,708	403,983	938,343	2,504,188	10,327,293
07/01/12 - 06/30/13	0	0	0	1,045,195	1,297,132	675,187	1,031,721	3,507,115	11,566,880
07/01/13 - 06/30/14	0	27,373	25,971	779,068	1,434,169	574,261	901,902	3,160,497	11,417,137
07/01/14 - 06/30/15	0	56,500	0	649,352	1,031,981	932,610	985,860	3,921,675	10,690,602

#### PRIMARY CONVERSION FACTORS (Appendix B-I, Section A-1)

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
07/01/10 - 06/30/11	0.795	0.790	0.862	0.875	0.870	0.797	0.792	0.974	0.919
07/01/11 - 06/30/12	0.834	0.827	0.905	0.919	0.911	0.837	0.829	0.982	0.923
07/01/12 - 06/30/13	0.910	0.878	0.988	1.002	0.967	0.912	0.881	0.982	0.930
07/01/13 - 06/30/14	1.038	0.947	1.113	1.125	1.026	1.041	0.949	1.032	0.968
07/01/14 - 06/30/15	1.379	1.040	1.436	1.447	1.091	1.381	1.042	1.156	1.020

#### EXPECTED EXCESS PROVISION AND REDISTRIBUTION (Appendix B-I, Section A-2)

After the application of the primary conversion factors, the limited losses are brought to an expected unlimited level through the application of a hazard group-specific excess loss factor. The factor is shown below:

	HAZARD GROUP: C
Excess Factor	1.081

As the excess loss factor is on a combined (indemnity and medical) basis, the following portion of the indemnity expected excess losses are redistributed to medical in order to more accurately allocate expected excess losses:

Redistribution %	40%
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## INDIANA

### APPENDIX B-III

#### Derivation of Proposed Rate - Code 8810

#### EXPECTED UNLIMITED LOSSES (Limited Losses x Primary Conversion Factors, then adjusted for the Excess Provision and Redistribution)

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
07/01/10 - 06/30/11	0	0	51,696	565,864	2,156,156	126,961	725,610	2,695,149	12,794,967
07/01/11 - 06/30/12	0	0	76,911	871,786	1,404,040	354,584	815,729	2,698,809	10,373,616
07/01/12 - 06/30/13	0	0	0	1,098,234	1,315,348	645,727	953,165	3,777,166	11,699,563
07/01/13 - 06/30/14	0	27,183	30,312	919,090	1,543,041	626,889	897,544	3,574,842	12,024,203
07/01/14 - 06/30/15	0	61,618	0	985,323	1,180,664	1,350,590	1,077,241	4,973,279	11,860,294

#### SECONDARY CONVERSION FACTORS (Appendix B-I, Section A-3)

Policy Period	INDUSTRY GROUP: Office and Clerical
07/01/10 - 06/30/11	1.023
07/01/11 - 06/30/12	1.020
07/01/12 - 06/30/13	0.977
07/01/13 - 06/30/14	0.994
07/01/14 - 06/30/15	1.092

#### PAYROLL, FINAL CONVERTED LOSSES (Expected Unlimited Losses x Secondary Conversion Factors)

Policy Period	Payroll	Indemnity Likely	Indemnity Not-Likely	Medical Likely	Medical Not-Likely	Total Indemnity	Total Medical	Total
07/01/10 - 06/30/11	22,695,205,795	761,645	2,948,047	2,757,137	13,089,251	3,709,692	15,846,388	19,556,080
07/01/11 - 06/30/12	22,607,692,687	1,329,347	2,264,164	2,752,785	10,581,088	3,593,511	13,333,873	16,927,384
07/01/12 - 06/30/13	21,491,638,143	1,703,850	2,216,337	3,690,291	11,430,473	3,920,187	15,120,764	19,040,951
07/01/13 - 06/30/14	21,996,115,686	1,566,833	2,452,961	3,553,393	11,952,058	4,019,794	15,505,451	19,525,245
07/01/14 - 06/30/15	23,062,774,024	2,550,817	2,532,919	5,430,821	12,951,441	5,083,736	18,382,262	23,465,998
Total	111,853,426,335	7,912,492	12,414,428	18,184,427	60,004,311	20,326,920	78,188,738	98,515,658
<b>INDICATED PURE PREMIUM</b>						<b>0.018</b>	<b>0.070</b>	<b>0.09</b>

The present on rate level pure premiums are developed by adjusting the pure premiums underlying the current rate by the conversion factors calculated in Appendix B-I. The derivation of the present on rate level pure premiums for the above-captioned classification follows:

	Indemnity	Medical	Total
Pure Premiums Underlying Current Rate	0.022	0.078	0.10
Conversion Factors (App. B-I, Section B)	0.850	0.858	xxx
<b>PURE PREMIUMS PRESENT ON RATE LEVEL</b> <b>(Underlying Pure Premiums) x (Conversion Factor)</b>	<b>0.019</b>	<b>0.067</b>	<b>0.09</b>



## INDIANA

### APPENDIX B-III

#### Derivation of Proposed Rate - Code 8810 Industry Group - Office and Clerical, Hazard Group - C

The rate for the above-captioned classification is derived as follows:

	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
1. Indicated Pure Premium	0.018	0.070	0.09
2. Pure Premium Indicated by National Relativity	0.017	0.059	0.08
3. Pure Premium Present on Rate Level	0.019	0.067	0.09
4. State Credibilities	100%	100%	xxx
5. National Credibilities	0%	0%	xxx
6. Residual Credibilities = 100% - (4) - (5)	0%	0%	xxx
7. Derived by Formula Pure Premiums = (1) x (4) + (2) x (5) + (3) x (6)	0.018	0.070	0.09
8. Test Correction Factor	0.9643	0.9643	xxx
9. Underlying Pure Premiums = (7) x (8) *	0.022	0.068	0.09
10. Ratio of Manual to Standard Premium			1.098
11. Target Cost Ratio			0.731
12. Rate = (9) x (10) / (11)			0.14
13. Rate Within Swing Limits			0.14
Current Rate x Swing Limits			
a) Lower bound = 0.15 x 0.610 = 0.10			
b) Upper bound = 0.15 x 1.110 = 0.16			
14. Pure Premiums Underlying Proposed Rate* = ((14TOT) / (9TOT)) x (9) ; (14TOT) = (13) x (11) / (10)	0.022	0.068	0.09
15. Disease, Catastrophe and/or Miscellaneous Loadings			0.00
16. Final Loaded Rate			0.14

\* Indemnity pure premium is adjusted for the rounded total pure premium:  
Indemnity Pure Premium = Total Pure Premium - Medical Pure Premium



## INDIANA

### APPENDIX B-IV

#### I. Determination and Distribution of Premium Level Change to “F” Classifications

The Workers Compensation Statistical Plan (WCSP) data is used to determine the overall “F” classifications (F-class) premium level change as well as the individual change by the various classifications. There are three sets of pure premiums for each classification: indicated, present on rate level, and national pure premiums. All sets of pure premiums are adjusted to the common proposed level that is explained further in this exhibit. These three sets of pure premiums are credibility weighted and the results, the derived by formula pure premiums, are adjusted for additional proposed components (Section II) to determine the indicated rates. The payrolls are extended by the rates presently in effect and by the indicated rates. The rates are limited to the swing limits based on 25% above and 25% below the current rates. This results in the indicated rate level change of -2.6%.

#### Section A – Calculation of F-Class Indicated Pure Premiums

The payroll and loss data reported are from the WCSP data by class code for the latest available five policy periods.

##### Section A-1 – Calculation of Primary Conversion Factors

##### 1. Factors to Adjust to the Proposed Benefit Levels

The state losses are adjusted to the January 1, 2017 state law level. The federal losses are adjusted to the October 1, 2016 federal law level.

##### STATE ACT

Policy Period	Fatal	Permanent Total (P.T.)	Permanent Partial (P.P.)	Temporary Total (T.T.)	Medical
1/10 - 12/10	1.066	1.161	1.177	1.069	0.951
1/11 - 12/11	1.066	1.157	1.174	1.069	0.951
1/12 - 12/12	1.066	1.157	1.174	1.069	0.951
1/13 - 12/13	1.064	1.151	1.168	1.067	0.958
1/14 - 12/14	1.043	1.104	1.113	1.046	1.004

##### FEDERAL ACT

Policy Period	Fatal	Permanent Total (P.T.)	Permanent Partial (P.P.)	Temporary Total (T.T.)	Medical
1/10 - 12/10	1.028	1.023	1.009	1.023	1.000
1/11 - 12/11	1.023	1.019	1.008	1.019	1.000
1/12 - 12/12	1.017	1.015	1.006	1.015	1.000
1/13 - 12/13	1.013	1.011	1.004	1.011	1.000
1/14 - 12/14	1.010	1.008	1.003	1.008	1.000

##### 2. Factors to Adjust to the Proposed Trend Level

The following factors are applied to trend the losses in each policy year to the proposed rating year. The selected annual trends utilized were 0.960 and 0.995 for indemnity and medical, respectively.

Policy Period	Indemnity	Medical
1/10 - 12/10	0.721	0.961
1/11 - 12/11	0.751	0.966
1/12 - 12/12	0.783	0.970
1/13 - 12/13	0.815	0.975
1/14 - 12/14	0.849	0.980



## INDIANA

### APPENDIX B-IV

#### Section A-1 Calculation of Primary Conversion Factors (continued)

##### 3. Limited Loss Development Factors

The following factors are applied to develop the losses from first through fifth report to an ultimate basis utilizing countrywide data.

Policy Period	Indemnity		Medical	
	Likely-to-Develop	Not-Likely-to-Develop	Likely-to-Develop	Not-Likely-to-Develop
1/10 - 12/10	1.107	1.021	1.205	1.017
1/11 - 12/11	1.152	1.038	1.213	1.021
1/12 - 12/12	1.260	1.097	1.277	1.044
1/13 - 12/13	1.455	1.214	1.365	1.049
1/14 - 12/14	2.500	1.747	1.680	1.113

##### 4. Primary Conversion Factors = (1) x (2) x (3)

The factors above contained within Section A-1, are combined multiplicatively, resulting in the following factors for the Likely-to-Develop (L) and Not-Likely-to-Develop (NL) groupings.

##### STATE ACT

Policy Period	Fatal (L)	Fatal (NL)	P.T.*	P.P. (L)	P.P. (NL)	T.T. (L)	T.T. (NL)	Medical (L)	Medical (NL)
1/10 - 12/10	0.851	0.785	0.927	0.939	0.866	0.853	0.787	1.101	0.929
1/11 - 12/11	0.922	0.831	1.001	1.016	0.915	0.925	0.833	1.114	0.938
1/12 - 12/12	1.052	0.916	1.141	1.158	1.008	1.055	0.918	1.178	0.963
1/13 - 12/13	1.262	1.053	1.365	1.385	1.156	1.265	1.056	1.275	0.980
1/14 - 12/14	2.214	1.547	2.343	2.362	1.651	2.220	1.551	1.653	1.095

##### FEDERAL ACT

Policy Period	Fatal (L)	Fatal (NL)	P.T.*	P.P. (L)	P.P. (NL)	T.T. (L)	T.T. (NL)	Medical (L)	Medical (NL)
1/10 - 12/10	0.820	0.757	0.817	0.805	0.743	0.817	0.753	1.158	0.977
1/11 - 12/11	0.885	0.797	0.882	0.872	0.786	0.882	0.794	1.172	0.986
1/12 - 12/12	1.003	0.874	1.001	0.992	0.864	1.001	0.872	1.239	1.013
1/13 - 12/13	1.201	1.002	1.199	1.191	0.993	1.199	1.000	1.331	1.023
1/14 - 12/14	2.144	1.498	2.139	2.129	1.488	2.139	1.495	1.646	1.091

\* Permanent Total losses are always assigned to the Likely-to-Develop grouping.





## INDIANA

### APPENDIX B-IV

#### Section A-2 – Expected Excess Provision and Redistribution

To reduce distortions in individual class rate indications, individual claim amounts are subject to a maximum limit of \$500,000. Multiple claim accidents are limited to three times the individual claim loss limitation. After the application of the primary conversion factors, the limited losses are brought to an expected unlimited level through the application of excess loss factors by hazard group. These factors are shown below.

Hazard Group	A	B	C	D	E	F	G
(1) Excess Ratios	0.046	0.065	0.075	0.092	0.116	0.141	0.173
(2) Excess Factors 1/(1-(1))	1.048	1.070	1.081	1.101	1.131	1.164	1.209

As the excess loss factors are on a combined (indemnity and medical) basis, a portion (40%) of the indemnity expected excess losses are redistributed to medical in order to more accurately allocate expected excess losses. Since a portion of the expected excess losses are redistributed in an additive manner, the expected excess factors shown above cannot be combined multiplicatively with either the primary or secondary loss conversion factors.

#### Section A-3 – Calculation of Secondary Conversion Factors

The following factors are applied to include the proposed loss-based expenses. The state losses are adjusted to reflect the proposed loss-based expenses. The federal losses are adjusted to reflect the proposed USL&HW Special Fund Assessment and loss adjustment expense. The combined\*\* factors are based on a combined indemnity and medical loss-weighted average of the above loss-based expenses by policy period.

Policy Period	State Act	Federal Act
1/10 - 12/10	1.166	1.200
1/11 - 12/11	1.166	1.213
1/12 - 12/12	1.166	1.188
1/13 - 12/13	1.166	1.204
1/14 - 12/14	1.166	1.166

\*\* See Section B.3 for the indemnity and medical breakdown of the proposed loss-based expenses.



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**APPENDIX B-IV**

**Section B – Present on Rate Level**

**1. Benefits**

The current underlying pure premiums are at the current July 1, 2016 state and October 1, 2015 federal law levels. These pure premiums are adjusted to reflect the weighted effect of state and federal laws which bring losses to the proposed January 1, 2017 state and October 1, 2016 federal law levels. The distribution of state and federal losses in regard to total losses was used to determine the weighted effects.

State Weight (St%)	0.257
Federal Weight (Fed%)	0.743

	Indemnity	Medical	Total
(a) State Laws	1.000	1.008	1.005
(b) Federal Laws	1.002	1.000	1.001
(c) Weighted Laws = [(a)xSt%] + [(b)xFed%]	1.001	1.002	1.002

**2. Trend**

Since the trend in the current underlying pure premiums is adequate for the current rating year, additional trend is applied to bring the underlyings to the proposed rating year.

Indemnity	Medical
0.960	0.995



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**APPENDIX B-IV**

**Section B – Present on Rate Level (continued)**

**3. Loss-Based Expenses**

The current underlying pure premiums are adjusted to reflect the change in the weighted effect of the loss-based expense provisions.

Proposed:

STATE ACT			
	Indemnity	Medical	Total
(a) Loss Adjustment Expense	1.166	1.166	1.166
(b) Loss-Based Assessment	1.000	1.000	1.000
(c) Total = (a) + (b) - 1	1.166	1.166	1.166

FEDERAL ACT			
	Indemnity	Medical	Total
(d) Loss Adjustment Expense	1.166	1.166	1.166
(e) Loss-Based Assessment	1.119	1.000	1.071
(f) Total = (d) + (e) - 1	1.285	1.166	1.237

	Indemnity	Medical	Total
(g) Weighted Proposed Expenses = [(c) x St%] + [(f) x Fed%]	1.254	1.166	1.219

Current:

STATE ACT			
	Indemnity	Medical	Total
(h) Loss Adjustment Expense	1.165	1.165	1.165
(i) Loss-Based Assessment	1.000	1.000	1.000
(j) Total = (h) + (i) - 1	1.165	1.165	1.165

FEDERAL ACT			
	Indemnity	Medical	Total
(k) Loss Adjustment Expense	1.165	1.165	1.165
(l) Loss-Based Assessment	1.116	1.000	1.064
(m) Total = (k) + (l) - 1	1.281	1.165	1.229

	Indemnity	Medical	Total
(n) Weighted Current Expenses = [(j) x St%] + [(m) x Fed%]	1.251	1.165	1.213

Change:

	Indemnity	Medical	Total
Weighted Expense Change in Loss-Based Expenses = [(g) / (n)]	1.002	1.001	1.005

**4. Conversion Factors = (1) x (2) x (3)**

The factors have been applied multiplicatively resulting in the following factors.

Indemnity	Medical
0.963	0.998



## INDIANA

### APPENDIX B-IV

#### Section C – National Pure Premiums

The latest three years of state and federal losses for states in which NCCI compiles workers compensation data are separately adjusted to the same level as the indicated and present on rate level pure premiums.

#### Class Code 9077

For Code 9077, the indicated, national and present on rate level pure premiums were calculated as described previously in Sections A, B and C but using the non-appropriated benefit changes and the federal loss-based expenses.

#### Section D – Derived by Formula Pure Premiums

The derived by formula pure premiums are calculated by a process similar to that of the industrial codes, which is described in Appendix B-I, Section D. To achieve full state credibility, a classification must have expected losses of at least: \$50,507,000 for indemnity and \$26,544,800 for medical.

### II. Calculation of Proposed Rates

The following items are combined with the derived by formula pure premiums to obtain the proposed rate:

<b>A. Test Correction Factor</b>	<b>1.0000</b>
----------------------------------	---------------

<b>B. Ratio of Manual Premium to Earned Premium</b>	<b>1.112</b>
(determined on a countrywide basis)	

<b>C. Expense Allowance</b>	<b>0.731</b>
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The expense allowance is introduced into the rate by dividing the product of the proposed pure premiums and the appropriate factors above by the proposed target cost ratio.

#### **D. Swing Limits**

No classifications were adjusted on account of swing limits.



## INDIANA

### APPENDIX B-IV

#### Derivation of Proposed Rate - Code 7313

The indicated pure premiums are developed by adjusting the limited losses by a set of conversion factors. The converted losses are then summarized into indemnity and medical and then divided by payroll (in hundreds). The derivation of the indicated pure premium for the above-captioned classification follows:

#### STATE ACT - LIMITED LOSSES (Workers Compensation Statistical Plan)

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
01/01/10 - 12/31/10	0	0	0	0	0	0	0	0	0
01/01/11 - 12/31/11	0	0	0	0	0	0	0	0	3,729
01/01/12 - 12/31/12	0	0	0	0	0	0	0	0	257
01/01/13 - 12/31/13	0	0	0	0	0	0	0	0	133
01/01/14 - 12/31/14	0	0	0	0	0	0	0	0	0

#### FEDERAL ACT - LIMITED LOSSES (Workers Compensation Statistical Plan)

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
01/01/10 - 12/31/10	0	0	0	0	0	0	0	0	18,248
01/01/11 - 12/31/11	0	0	0	0	0	0	0	0	4,870
01/01/12 - 12/31/12	0	0	0	0	0	0	0	0	0
01/01/13 - 12/31/13	0	0	0	0	0	0	0	0	0
01/01/14 - 12/31/14	0	0	0	0	0	0	0	0	0

#### STATE ACT - PRIMARY PARTIAL CONVERSION FACTORS (Appendix B-IV, Section A-1)

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
01/01/10 - 12/31/10	0.851	0.785	0.927	0.939	0.866	0.853	0.787	1.101	0.929
01/01/11 - 12/31/11	0.922	0.831	1.001	1.016	0.915	0.925	0.833	1.114	0.938
01/01/12 - 12/31/12	1.052	0.916	1.141	1.158	1.008	1.055	0.918	1.178	0.963
01/01/13 - 12/31/13	1.262	1.053	1.365	1.385	1.156	1.265	1.056	1.275	0.980
01/01/14 - 12/31/14	2.214	1.547	2.343	2.362	1.651	2.220	1.551	1.653	1.095

#### FEDERAL ACT - PRIMARY PARTIAL CONVERSION FACTORS (Appendix B-IV, Section A-1)

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
01/01/10 - 12/31/10	0.820	0.757	0.817	0.805	0.743	0.817	0.753	1.158	0.977
01/01/11 - 12/31/11	0.885	0.797	0.882	0.872	0.786	0.882	0.794	1.172	0.986
01/01/12 - 12/31/12	1.003	0.874	1.001	0.992	0.864	1.001	0.872	1.239	1.013
01/01/13 - 12/31/13	1.201	1.002	1.199	1.191	0.993	1.199	1.000	1.331	1.023
01/01/14 - 12/31/14	2.144	1.498	2.139	2.129	1.488	2.139	1.495	1.646	1.091



## INDIANA

### APPENDIX B-IV

#### Derivation of Proposed Rate - Code 7313

##### EXPECTED EXCESS PROVISION AND REDISTRIBUTION (Appendix B-IV, Section A-2)

After the application of the primary conversion factors, the limited losses are brought to an expected unlimited level through the application of a hazard group-specific excess loss factor. The factor is shown below:

HAZARD GROUP: G	
Excess Factor	1.209

As the excess loss factor is on a combined (indemnity and medical) basis, the following portion of the indemnity expected excess losses are redistributed to medical in order to more accurately allocate expected excess losses:

Redistribution %	40%
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##### STATE ACT - EXPECTED UNLIM LOSSES (Lim Losses x Primary Conv Factors, then adjusted for the Excess Provision and Redistribution)

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
01/01/10 - 12/31/10	0	0	0	0	0	0	0	0	0
01/01/11 - 12/31/11	0	0	0	0	0	0	0	0	4,230
01/01/12 - 12/31/12	0	0	0	0	0	0	0	0	299
01/01/13 - 12/31/13	0	0	0	0	0	0	0	0	157
01/01/14 - 12/31/14	0	0	0	0	0	0	0	0	0

##### FEDERAL ACT - EXPECTED UNLIM LOSSES (Lim Losses x Primary Conv Factors, then adjusted for the Excess Provision and Redistribution)

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
01/01/10 - 12/31/10	0	0	0	0	0	0	0	0	21,557
01/01/11 - 12/31/11	0	0	0	0	0	0	0	0	5,807
01/01/12 - 12/31/12	0	0	0	0	0	0	0	0	0
01/01/13 - 12/31/13	0	0	0	0	0	0	0	0	0
01/01/14 - 12/31/14	0	0	0	0	0	0	0	0	0

##### STATE ACT - SECONDARY CONVERSION FACTORS (Appendix B-IV, Section A-3)

Policy Period	INDUSTRY GROUP: F-Class
01/01/10 - 12/31/10	1.166
01/01/11 - 12/31/11	1.166
01/01/12 - 12/31/12	1.166
01/01/13 - 12/31/13	1.166
01/01/14 - 12/31/14	1.166

##### FEDERAL ACT - SECONDARY CONVERSION FACTORS (Appendix B-IV, Section A-3)

Policy Period	INDUSTRY GROUP: F-Class
01/01/10 - 12/31/10	1.200
01/01/11 - 12/31/11	1.213
01/01/12 - 12/31/12	1.188
01/01/13 - 12/31/13	1.204
01/01/14 - 12/31/14	1.166



# INDIANA

## APPENDIX B-IV

### Derivation of Proposed Rate - Code 7313

#### TOTAL - PAYROLL, FINAL CONVERTED LOSSES

Policy Period	Payroll	Indemnity Likely	Indemnity Not-Likely	Medical Likely	Medical Not-Likely	Total Indemnity	Total Medical	Total
01/01/10 - 12/31/10	1,299,658	0	0	0	25,868	0	25,868	25,868
01/01/11 - 12/31/11	1,402,914	0	0	0	11,976	0	11,976	11,976
01/01/12 - 12/31/12	1,622,349	0	0	0	349	0	349	349
01/01/13 - 12/31/13	1,920,536	0	0	0	183	0	183	183
01/01/14 - 12/31/14	2,399,311	0	0	0	0	0	0	0
Total	8,644,768	0	0	0	38,376	0	38,376	38,376
INDICATED PURE PREMIUM						0.000	0.444	0.44

The present on rate level pure premiums are developed by adjusting the pure premiums underlying the current rate by the conversion factors. The derivation of the present on rate level pure premiums for the above-captioned classification follows:

	Indemnity	Medical	Total
Pure Premiums Underlying Current Rate	1.062	1.498	2.56
Conversion Factors (Section B)	0.963	0.998	xxx
<b>PURE PREMIUMS PRESENT ON RATE LEVEL</b>			
<b>(Underlying Pure Premiums) x (Conversion Factor)</b>	1.023	1.495	2.52



## INDIANA

### APPENDIX B-IV

#### Derivation of Proposed Rate - Code 7313

Industry Group - F-Class, Hazard Group - G

The rate for the above-captioned classification is derived as follows:

	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
1. Indicated Pure Premium	0.000	0.444	0.44
2. Pure Premium Indicated by National Relativity	2.204	2.177	4.38
3. Pure Premium Present on Rate Level	1.023	1.495	2.52
4. State Credibilities	8%	12%	xxx
5. National Credibilities	23%	25%	xxx
6. Residual Credibilities = 100% - (4) - (5)	69%	63%	xxx
7. Derived by Formula Pure Premiums = (1) x (4) + (2) x (5) + (3) x (6)	1.213	1.539	2.75
8. Test Correction Factor	1.0000	1.0000	xxx
9. Underlying Pure Premiums = (7) x (8) *	1.211	1.539	2.75
10. Ratio of Manual to Standard Premium			1.112
11. Target Cost Ratio			0.731
12. Rate = (9) x (10) / (11)			4.18
13. Rate Within Swing Limits			4.18
Current Rate x Swing Limits			
a) Lower bound = 3.82 x 0.750 = 2.87			
b) Upper bound = 3.82 x 1.250 = 4.77			
14. Pure Premiums Underlying Proposed Rate* = ((14TOT) / (9TOT)) x (9) ; (14TOT) = (13) x (11) / (10)	1.211	1.539	2.75
15. Disease, Catastrophe and/or Miscellaneous Loadings			0.00
16. Final Loaded Rate			4.18

\* Indemnity pure premium is adjusted for the rounded total pure premium:

Indemnity Pure Premium = Total Pure Premium - Medical Pure Premium





## INDIANA

### APPENDIX B-V

#### Derivation of Proposed Traumatic Rate - Code 1016

As previously explained in Appendix B-I, the indicated pure premiums are developed by adjusting the limited losses by a set of conversion factors. The converted losses are then summarized into indemnity and medical and then divided by payroll (in hundreds). The derivation of the indicated pure premium for classification 1016 follows:

#### LIMITED LOSSES (Workers Compensation Statistical Plan)

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
07/01/10 - 06/30/11	0	0	124,234	24,720	720,940	26,650	135,312	737,962	1,785,508
07/01/11 - 06/30/12	0	0	0	528,380	870,245	11,200	78,114	786,999	2,235,539
07/01/12 - 06/30/13	0	332,500	0	597,261	387,073	0	125,281	459,010	1,300,796
07/01/13 - 06/30/14	0	0	0	325,137	191,729	3,807	95,808	218,848	1,180,384
07/01/14 - 06/30/15	0	0	0	128,805	310,757	24,771	125,177	393,407	1,087,523

#### PRIMARY PARTIAL CONVERSION FACTORS (Appendix B-I, Section A-1)

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
07/01/10 - 06/30/11	0.795	0.790	0.862	0.875	0.870	0.797	0.792	0.974	0.919
07/01/11 - 06/30/12	0.834	0.827	0.905	0.919	0.911	0.837	0.829	0.982	0.923
07/01/12 - 06/30/13	0.910	0.878	0.988	1.002	0.967	0.912	0.881	0.982	0.930
07/01/13 - 06/30/14	1.038	0.947	1.113	1.125	1.026	1.041	0.949	1.032	0.968
07/01/14 - 06/30/15	1.379	1.040	1.436	1.447	1.091	1.381	1.042	1.156	1.020

#### EXPECTED EXCESS PROVISION AND REDISTRIBUTION (Appendix B-I, Section A-2)

After the application of the primary conversion factors, the limited losses are brought to an expected unlimited level through the application of a hazard group-specific excess loss factor. The factor is shown below:

	HAZARD GROUP: G
Excess Factor	1.209

As the excess loss factor is on a combined (indemnity and medical) basis, the following portion of the indemnity expected excess losses are redistributed to medical in order to more accurately allocate expected excess losses:

Redistribution %	40%
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## INDIANA

### APPENDIX B-V

#### Derivation of Proposed Traumatic Rate - Code 1016

#### EXPECTED UNLIMITED LOSSES (Limited Losses x Primary Conversion Factors, then adjusted for the Excess Provision and Redistribution)

Policy Period	Fatal Likely	Fatal Not-Likely	Permanent Total	Permanent Partial Likely	Permanent Partial Not-Likely	Temporary Total Likely	Temporary Total Not-Likely	Medical Likely	Medical Not-Likely
07/01/10 - 06/30/11	0	0	120,531	24,345	705,943	23,906	120,618	881,683	2,045,588
07/01/11 - 06/30/12	0	0	0	546,528	892,299	10,551	72,885	975,918	2,566,801
07/01/12 - 06/30/13	0	328,577	0	673,571	421,280	0	124,226	595,116	1,527,789
07/01/13 - 06/30/14	0	0	0	411,689	221,405	4,460	102,334	304,035	1,405,703
07/01/14 - 06/30/15	0	0	0	209,774	381,590	38,503	146,805	568,371	1,380,605

#### SECONDARY PARTIAL CONVERSION FACTOR (Loss-based expense, if applicable)

	Indemnity	Medical
Loss Based Expense	1.166	1.166

#### PAYROLL, FINAL CONVERTED LOSSES (Expected Unlimited Losses x Loss-Based Expenses, if applicable)

Policy Period	Payroll	Indemnity Likely	Indemnity Not-Likely	Medical Likely	Medical Not-Likely	Total Indemnity	Total Medical	Total
07/01/10 - 06/30/11	102,124,354	196,800	963,770	1,028,042	2,385,156	1,160,570	3,413,198	4,573,768
07/01/11 - 06/30/12	115,785,756	649,554	1,125,405	1,137,920	2,992,890	1,774,959	4,130,810	5,905,769
07/01/12 - 06/30/13	106,988,102	785,384	1,019,181	693,905	1,781,402	1,804,565	2,475,307	4,279,872
07/01/13 - 06/30/14	78,438,249	485,230	377,480	354,505	1,639,050	862,709	1,993,555	2,856,264
07/01/14 - 06/30/15	86,001,423	289,491	616,109	662,721	1,609,785	905,600	2,272,506	3,178,106
Total	489,337,884	2,406,458	4,101,944	3,877,093	10,408,283	6,508,402	14,285,376	20,793,778
<b>INDICATED PURE PREMIUM</b>						<b>1.330</b>	<b>2.919</b>	<b>4.25</b>

The present on rate level pure premiums are developed by adjusting the pure premiums underlying the current rate by the conversion factors calculated in Appendix B-I. The derivation of the present on rate level pure premiums for the above-captioned classification follows:

	Indemnity	Medical	Total
Pure Premiums Underlying Current Rate	1.446	3.044	4.49
Conversion Factors *	0.983	0.992	xxx
<b>PURE PREMIUMS PRESENT ON RATE LEVEL</b> <b>(Underlying Pure Premiums) x (Conversion Factor)</b>	1.421	3.020	4.44

\* Conversion factors only adjust for changes in trend, benefit, and if applicable, loss-based expense provision.



## INDIANA

### APPENDIX B-V

#### Derivation of Proposed Traumatic Rate - Code 1016

COAL MINING—NOC, Hazard Group - G

The traumatic rate for classification 1016 is derived as follows:

	<u>Indemnity</u>	<u>Medical</u>	<u>Total</u>
1. Indicated Pure Premium	1.330	2.919	4.25
2. Pure Premium Indicated by National Relativity	1.561	2.771	4.33
3. Pure Premium Present on Rate Level	1.421	3.020	4.44
4. State Credibilities†	67%	97%	xxx
5. National Credibilities	16%	1%	xxx
6. Residual Credibilities = 100% - (4) - (5)	17%	2%	xxx
7. Derived by Formula Pure Premiums = (1) x (4) + (2) x (5) + (3) x (6)	1.382	2.920	4.30
8. Voluntary Offset	1.000	1.000	xxx
9. Underlying Pure Premiums = (7) x (8) *	1.380	2.920	4.30
10. Ratio of Manual to Standard Premium			1.056
11. Target Cost Ratio			0.731
12. Rate = (9) x (10) / (11)			6.21
13. Rate Within Swing Limits			6.21
Current Rate x Swing Limits			
a) Lower bound = 6.48 x 0.75 =	4.86		
b) Upper bound = 6.48 x 1.25 =	8.10		
14. Pure Premiums Underlying Proposed Rate* = ((14TOT) / (9TOT)) x (9) ; (14TOT) = (13) x (11) / (10)	1.380	2.920	4.30
15. Proposed Traumatic Rate			6.21
16. Proposed Traumatic Loss Cost = (15) x 0.731 #			4.54

† To achieve full state credibility, the classification must have expected losses of at least: \$18,845,552 for indemnity, and \$15,823,108 for medical.

\* Indemnity pure premium is adjusted for the rounded total pure premium:

Indemnity Pure Premium = Total Pure Premium - Medical Pure Premium

# 0.731 = Factor to convert from Traumatic Rate to Traumatic Loss Costs



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Appendix C – Memoranda for Laws and Assessments

Appendix C provides details on changes affecting workers compensation benefit costs that are not yet reflected in the on-level factors shown in Appendix A-I. Such changes may result from legislative changes to the maximum weekly wage used for calculating benefits along with changes to the awards per degree of permanent partial impairment, changes to medical reimbursement levels, or other recurring changes that directly affect worker compensation benefit levels. In addition, changes to the administration of the workers compensation system, including benefit levels, may result from specific regulatory, legislative, or judicial action.

The following changes affecting State benefit levels are detailed in this section of the filing:

- Annual Update to the Medical Fee Schedule
- Longshore and Harbor Workers' Compensation Act
  - Change in the Minimum and Maximum Weekly Benefits, Effective October 1, 2016
  - Annual Assessment



## INDIANA APPENDIX C-I

### ANALYSIS OF INDIANA MEDICAL FEE SCHEDULE UPDATES EFFECTIVE OCTOBER 1, 2016 AND JANUARY 1, 2017

NCCI estimates that the changes to the fee schedule for hospital inpatient services in Indiana, effective October 1, 2016, will result in an impact of +0.1% on overall workers compensation system costs in Indiana.

NCCI estimates that the changes to the fee schedule for hospital outpatient services in Indiana, effective January 1, 2017, will result in an impact of +0.4% on overall workers compensation system costs in Indiana.

#### Summary of Changes

The Indiana medical fee schedule changes are described below:

- Maximum reimbursement for Hospital Inpatient services was updated to 200% of Medicare's 2017 Inpatient Prospective Payment System (IPPS), effective October 1, 2016. Previously, maximum reimbursement for Hospital Inpatient services was 200% of Medicare's 2016 IPPS.
- Maximum reimbursement for Hospital Outpatient services was updated to 200% of Medicare's 2017 Outpatient Prospective Payment System (OPPS), effective January 1, 2017. Previously, maximum reimbursement for Hospital Outpatient services was 200% of Medicare's 2016 OPPS.

#### Actuarial Analysis

NCCI's methodology to evaluate the impact of medical fee schedule changes includes three major steps:

1. Calculate the percentage change in maximum reimbursements
  - Compare the prior and revised maximum reimbursements by procedure code and determine the percentage change by procedure code.
  - Calculate the weighted-average percentage change in maximum reimbursements for the fee schedule using observed payments by procedure code as weights.
2. Estimate the price level change as a result of the revised fee schedule
  - NCCI research by Frank Schmid and Nathan Lord (2013), "The Impact of Physician Fee Schedule Changes in Workers Compensation: Evidence from 31 States", suggests that a portion of a change in maximum reimbursements is realized on payments impacted by the change.
    - In response to a fee schedule decrease, NCCI research indicates that payments decline by approximately 50% of the fee schedule change.
    - In response to a fee schedule increase, NCCI research indicates that payments increase by approximately 80% of the fee schedule change and the magnitude of the response depends on the relative difference between actual payments and fee schedule maximums (i.e. the price departure).



## INDIANA APPENDIX C-I

### ANALYSIS OF INDIANA MEDICAL FEE SCHEDULE UPDATES EFFECTIVE OCTOBER 1, 2016 AND JANUARY 1, 2017

- The formula used to determine the percent realized for fee schedule increases is  $80\% \times (1.10 + 1.20 \times (\text{price departure}))$ .
- 3. Determine the share of costs that are subject to the fee schedule
  - The share is based on a combination of fields, such as procedure code, provider type, and place of service, as reported on the NCCI Medical Data Call, to categorize payments that are subject to the fee schedule.

In this analysis, NCCI relies primarily on two data sources:

- Detailed medical data underlying the calculations in this analysis are based on NCCI's Medical Data Call for Indiana for Service Year (SY) 2015.
- The share of benefit costs attributed to medical benefits is based on NCCI's Financial Call data for Indiana from the latest two policy years projected to the effective date of the benefit changes.

#### **Hospital Inpatient Fee Schedule**

In Indiana, payments for hospital inpatient services represent 10.8% of total medical payments. To calculate the percentage change in maximums for hospital inpatient services, we calculate the percentage change in maximum allowable reimbursement (MAR) for each hospital inpatient episode that is reported with a Medicare Severity Diagnosis Related Group (MS-DRG) Code. The overall change in maximums for hospital inpatient services is a weighted average of the percentage change in MAR (revised MAR/ prior MAR) for each episode weighted by the observed payments by episode as reported on NCCI's Medical Data Call, for Indiana for SY 2015. The overall weighted-average percentage change in maximums for hospital inpatient services is +1.7%.

Since the overall average maximum reimbursement for hospital inpatient services increased, the price realization factor is estimated according to the formula  $80\% \times (1.10 + 1.20 \times (\text{price departure}))$ . However, since a reliable price departure could not be calculated, the price realization factor is estimated to be 80%. The impact on hospital inpatient payments after applying the price realization factor is +1.4% ( $= +1.7\% \times 0.80$ ).

The above impact of +1.4% is then multiplied by the percentage of medical costs attributed to hospital inpatient payments (10.8%) to arrive at the impact on medical costs of +0.2%. This is then multiplied by the percentage of Indiana benefit costs attributed to medical benefits (71.1%) to arrive at a +0.1% impact on overall workers compensation costs in Indiana.

#### **Hospital Outpatient Fee Schedule**

In Indiana, payments for hospital outpatient services represent 17.8% of total medical payments. To calculate the percentage change in maximums for hospital outpatient services, we calculate the



**INDIANA**  
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**ANALYSIS OF INDIANA MEDICAL FEE SCHEDULE UPDATES**  
**EFFECTIVE OCTOBER 1, 2016 AND JANUARY 1, 2017**

percentage change in MAR for each procedure. The overall change in maximums for hospital outpatient services is a weighted average of the percentage change in MAR (revised MAR / prior MAR) by procedure code weighted by the observed payments by procedure code as reported on NCCI's Medical Data Call, for Indiana for SY 2015. The overall weighted-average percentage change in maximums for hospital outpatient services is +3.9%.

Note that Medicare rules for outpatient services contain a comprehensive payment policy that packages payment for adjunctive and secondary items, services, and procedures into the primary procedure under certain circumstances. For this analysis, the experience is aggregated according to the packaging rules reflected under Medicare, if applicable.

Since the overall average maximum reimbursement for hospital outpatient services increased, the price realization factor is estimated according to the formula  $80\% \times (1.10 + 1.20 \times (\text{price departure}))$ . However, since a reliable price departure could not be calculated, the price realization factor is estimated to be 80%. The impact on hospital outpatient payments after applying the price realization factor is +3.1% ( $= +3.9\% \times 0.80$ ).

The above impact of +3.1% is then multiplied by the Indiana percentage of medical costs attributed to hospital outpatient payments (17.8%) to arrive at the impact on medical costs of +0.6%. This is then multiplied by the percentage of Indiana benefit costs attributed to medical benefits (71.3%) to arrive at a +0.4% impact on overall workers compensation costs in Indiana.

**Summary of Impacts**

The impacts from the changes to the medical fee schedule are summarized in the table below:

Effective Date	Type of Service	(A) Impact on Type of Service	(B) Share of Medical Costs	(C) Impact on Medical Costs  (A) x (B)	(D) Medical Costs as a Percentage of Overall Workers Compensation Benefit Costs	(E) Impact on Overall Costs  (C) x (D)
10/1/2016	Hospital Inpatient	+1.4%	10.8%	+0.2%	71.1%	+0.1%
1/1/2017	Hospital Outpatient	+3.1%	17.8%	+0.6%	71.3%	+0.4%



## INDIANA

### APPENDIX C-II

#### Longshore and Harbor Workers' Compensation Act

##### Change in the Minimum and Maximum Weekly Benefits, Effective October 1, 2016

In the Longshore And Harbor Workers' Compensation Act, maximum and, for certain benefit types, minimum workers compensation indemnity benefit provisions are dependent upon the national average weekly wage (NAWW). The impacts summarized in the table below result from anticipated changes in workers compensation costs due to the change in the NAWW from \$703.00 ("current") to \$718.24 ("revised"), and apply to injuries occurring on or after October 1, 2016.

The approach used in calculating the effects of a change in the NAWW is as follows:

1. Obtain the latest available NAWW from the United States Department of Labor, Division of Longshore and Harbor Workers' Compensation (DLHWC).
2. Calculate the minimum and maximum benefits by benefit payment type that are dependent upon and expressed as a percentage of the current and revised NAWW.
3. Using a countrywide distribution of workers and their wages<sup>1</sup>, indexed to the Longshore And Harbor Workers' Compensation Act average weekly wage<sup>2</sup>, determine expected current and revised average weekly benefits by benefit payment type (and dependency type, as appropriate)<sup>3</sup>.
4. Use the above-calculated average weekly benefits to determine the indemnity benefit costs for each injury type (Fatal, Permanent Total, Permanent Partial, and Temporary Total)<sup>4</sup> prior to and subsequent to the change in the NAWW. Calculate the ratio of the revised indemnity benefit costs to current indemnity benefit costs for each injury type to determine the impact by injury type from the change in the NAWW.
5. Determine the indemnity cost distribution by injury type<sup>5</sup>.
6. Using the indemnity cost distribution (Step 5) and the effects by injury type (Step 4), calculate the effect of the change in NAWW on total indemnity benefit costs.
7. Multiply the impact on total indemnity benefit costs (Step 6) by the percentage of losses attributed to indemnity benefits to determine the impact of the change in the NAWW on overall benefit costs.

Type of Injury	Percentage of Losses	Effect (%)
Fatal	3.8%	+ 0.4
Permanent Total	2.2%	+ 0.3
Permanent Partial	45.7%	+ 0.1
Temporary Total	8.1%	+ 0.3
Total Indemnity	59.8%	+ 0.2
Medical	40.2%	0.0
Total	100.0%	+ 0.1

<sup>1</sup> Based on NCCI Detailed Claim Information data.

<sup>2</sup> Bureau of Labor Statistics Quarterly Census of Employment and Wages, for all private sector employment, and adjusted to reflect injured workers.

<sup>3</sup> For states where the rate of compensation is based on spendable wages, state and federal tax withholding tables are used in conjunction with pertinent assumptions (e.g., number of dependents).

<sup>4</sup> Various distributions based on internal and external data are employed in determining the impact by type of injury. For example, for Fatal injuries, a countrywide distribution of average ages and dependents by type (e.g., spouse, spouse with one child, parent, etc.) is used in calculating mortality-adjusted annuity values under both the current and revised weekly maximum benefits, with the likelihood of remarriage incorporated as applicable.

<sup>5</sup> NCCI Unit Statistical Plan data for the 36-month policy period ending 12/31/2013 on the 10/01/2015 law level and developed to an ultimate basis by type of injury.





## INDIANA

### APPENDIX C-III

#### U.S. Longshore and Harbor Workers' Compensation Act Assessment

The F-class and Program II, Option II maritime class voluntary loss costs/rates and assigned risk rates include the following provision for the federal assessment:

1.) Estimated Total Expense Needed for 2017 *	114,000,000
2.) Compensation Payments Reported (on indemnity only) in 2016 *	959,394,551
3.) Assessment Rate on Indemnity Losses (1) / (2)	11.9%

#### Breakdown of Losses Under the Longshore and Harbor Workers Act

4.) Indemnity Losses (Combination of 1st through 3rd reports) #	44,796,736
5.) Medical Losses (Combination of 1st through 3rd reports) #	30,153,455
6.) Total Losses (4) + (5)	74,950,191
7.) Assessment Rate on Total Losses { (3) x (4) } / (6)	7.1%

\* Source: U.S. Department of Labor

# Source: On-leveled and developed USL&HW losses - statistical plan data



**INDIANA**  
**APPENDIX D**

**I. Factor to Convert Advisory Rates to Assigned Risk Rates**

A factor of 1.000 is applied to the advisory rates in order to convert to assigned risk rates.

**II. Factor to Convert Advisory Rates to Advisory Loss Costs**

A factor of 0.731 is applied to the advisory rates in order to convert to advisory loss costs. This factor is the proposed target cost ratio for advisory rates.



## Indiana

### **Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018**

#### **Part 4 Additional Information**

- Definitions
- Key Contacts



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Definitions

**Accident Year (AY):** A loss accounting definition in which experience is summarized by the calendar year in which an accident occurred.

**Calendar Year (CY):**

1. The 12-month period beginning January 1 and ending December 31.
2. Method of accounting for all financial transactions occurring during a specific year.

**Case Reserves:** Reserves that an insurance company establishes for specific (known) claims.

**DSR Level Premium:** The standard earned premium that would result if business were written at NCCI state-approved loss costs or rates instead of at the company rates. It is the common benchmark level at which carriers report premium on the Financial Calls.

**Frequency:** The number of lost-time claims per million dollars of on-leveled, wage-adjusted premium.

**Incurred Claim Count:** The total of all claims reported, whether open or closed, as of a given valuation date. An indemnity claim is associated with a payment or case reserve for an indemnity loss (i.e., lost work time-related benefits) and excludes claims closed without an indemnity payment.

**Lost-time Claims:** Claims where an injured employee has received wage replacement benefits due to a compensable workplace injury.

**Limited Losses:** Losses that result after the application of NCCI's large loss procedure—in which individual large claims are limited to jurisdiction and year-specific large loss thresholds.

**On-Level Factor:** Applied to historical premiums and losses to adjust the historical experience to reflect approved loss cost/rate level changes as well as statutory benefit level changes implemented since that time.

**Paid+Case Losses:** The sum of paid losses and case reserves. Also known as “case incurred losses.”

**Paid Losses:** Losses that an insurance company has paid as a result of claim activity.



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Definitions

**Policy Year:**

- The one-year period beginning with the effective date or anniversary of a policy.
- A premium and loss accounting definition in which experience is summarized for all policies with effective dates in a given calendar year period.

**Severity:** The average cost per case (claim) calculated as ultimate losses divided by ultimate lost-time claim counts.

**Ultimate Development Factor:** For an aggregation of data, an estimate of the development that will occur between the data's current valuation date and the time when all claims are closed.

**Unlimited Losses:** Losses that have not been limited to jurisdiction and year-specific large loss thresholds as part of NCCI's large loss procedure.

**Valuation Date:** The date that premiums and losses are evaluated for reporting purposes. Premiums and losses may change over time from initial estimates to final values. Therefore, interim snapshots have associated valuation dates.

**Wage Level Adjustment Factor:** The ratio of the average workers' wages during the most recent time period to the average workers' wages during a historical time period.



## Indiana

### Advisory Loss Costs, Advisory Rates, and Assigned Risk Rates Filing – January 1, 2018

#### Key Contacts

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<b>SERFF Tracking #:</b>	INCR-131200706	<b>State Tracking #:</b>		<b>Company Tracking #:</b>	1/1/2018 RATES
<b>State:</b>	Indiana	<b>Filing Company:</b>	Indiana Compensation Rating Bureau		
<b>TOI/Sub-TOI:</b>	16.0 Workers Compensation/16.0004 Standard WC				
<b>Product Name:</b>	January 1, 2018 Advisory Rate Filing				
<b>Project Name/Number:</b>	/				

## Supporting Document Schedules

<b>Satisfied - Item:</b>	80 Filing Description/Cover Letter/NAIC Transmittal
<b>Comments:</b>	The filing cover letter is included in the Rate/Rule Schedule tab, within the document titled "January 1, 2018 Rate Filing."
<b>Attachment(s):</b>	
<b>Item Status:</b>	
<b>Status Date:</b>	

<b>Satisfied - Item:</b>	82 Actuarial Support
<b>Comments:</b>	Actuarial support is contained within the document titled "January 1, 2018 Rate Filing."
<b>Attachment(s):</b>	
<b>Item Status:</b>	
<b>Status Date:</b>	